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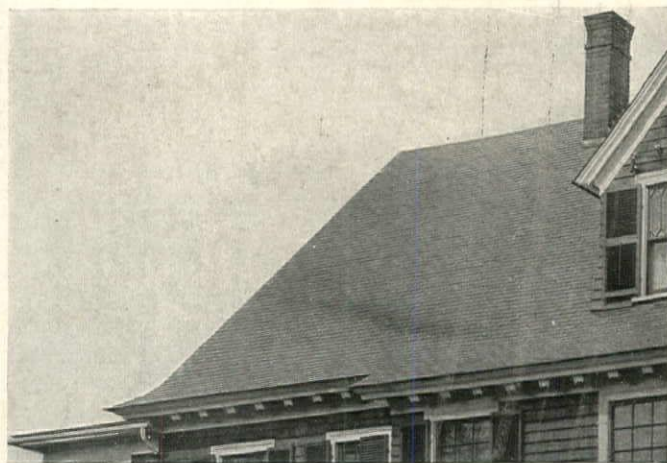
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Successor to Maine Slate Co., of Monson



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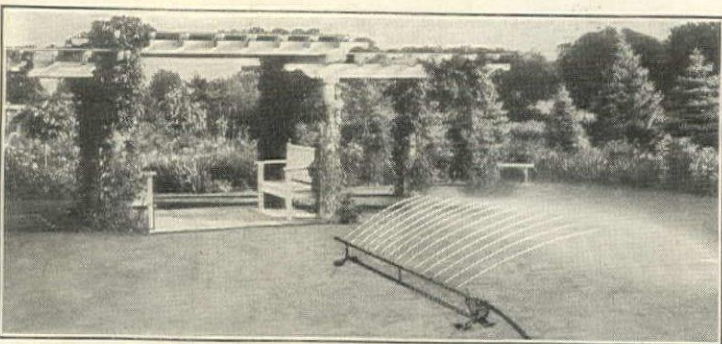
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It makes a complete oscillation from one side to the other every three seconds, thoroughly watering a rectangular area 8 feet wide and 50 to 70 feet long. No. 2 will water an area 14 feet wide and 50 to 70 feet long.

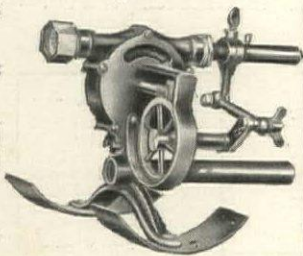
The jetted pipe is turned from side to side by a powerful little water motor which is both simple in construction and durable. It produces a fine rain-like shower that thoroughly waters every inch of the ground without overlapping or missing and does not injure the plants or pack the soil.

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Prices: No. 1, 8 ft. long, \$15.00;
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Money returned if not Satisfactory.
Send for booklet describing this and other irrigating devices suitable for all purposes.

The GEO. W. CLARK CO.
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Water Motor Made of Brass

Well-Kept Drives and Paths

and clean weed-free gutters beautify suburban homes and country estates.

ATLAS WEED-KILLER

Grass and Weed-Killing Chemical

kills weeds permanently — quickly — easily — cheaply. Atlas gets down to the deepest roots — one application each season, that's all.

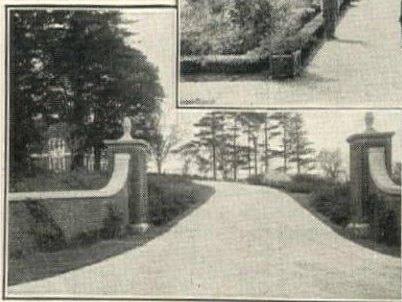
You mix Atlas with 20 times as much water in a sprinkling can and wet thoroughly the weeds and surface to be treated.

Vegetation will disappear in a few days leaving the surface undisturbed and free from growth.



Send 50c for trial quart can good for 150 square feet, post-paid east of the Mississippi River.

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Then why place the old-fashioned expensive-to-maintain, wooden windows in your home?

Crittall Casement Windows are the best that money can buy—and are reasonably low in cost, as quality goes.

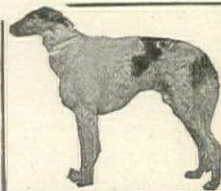
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The cross members are exceedingly narrow and exceptionally rigid, permitting an abundance of light.

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Manufacturers of Solid Steel and Bronze Windows

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Valley Farm Kennels
Address all communications to New York Office, 132 E. 19th St. The largest breeders and most successful exhibitors of Russian Wolfhounds in the world. Puppies and grown Hounds for sale. For companionship, sport, exhibition and profit at prices that will interest you.



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Best possible pets for children. Companions, also guards for the home. Faithful and affectionate. From best prize pedigreed strains.

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Bred for Brains and Type

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C. C. YOUNG, Show Bull Terriers Lawrence, Kansas



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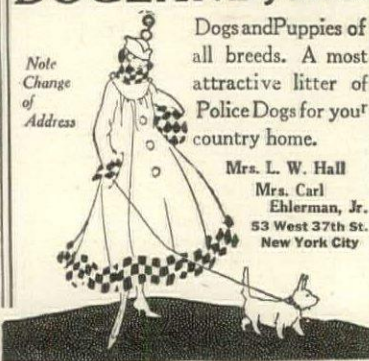
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Dogs and Puppies of all breeds. A most attractive litter of Police Dogs for your country home.

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New York City

Who's Who in Dogdom

So far we've described—Airedales, German Shepherds, English Bulls, Pekingese, Collies, Police Dogs, Great Danes, the Russian Wolfhound and the Sealyham Terrier.

This month it's the Irish Wolfhound, and besides showing a picture of a very intelligent-looking specimen, we give a list of reliable Irish Wolfhound Kennels, whose addresses will be furnished on application.

Look through the Kennel announcements in this number. Read about the worth while dogs offered. Write to the advertisers for details of the breed you select.



If you do not find advertised here just the dog you wish, perhaps we can find it for you. In writing state breed preference, and the approximate amount you wish to pay.

The Irish Wolfhound

Among the symbols of early Celtic history, few possess greater interest to the student of pagan and Christian Ireland than the Irish Wolfhound—the national dog of Ireland.

Of all dogs this giant hound of the Gaels has the most romantic past. A fine type of valor and beauty, he is inseparably associated with the history, romance and legends of Ireland from the earliest recorded days. His fame is celebrated again and again in the cycles of Finn, while the history and old laws of Ireland mark the value in which the hound was held.

A good description of the Irish Wolfhound was given by Father Hogan about twenty years ago. He traced the breed back through each century to the year 391 A. D. and said that in that year Flavianus upon his return to Rome from Ireland presented seven immense dogs to the Roman consul Quintus Aurelius Symmachus to provide barbaric amusement in the arena. It is recorded that all Rome viewed them with wonder.

In the first century, the King of Ulster and the King of Connaught offered the King of Leinster 6,000 cows and a chariot and horses for a famous Wolf dog and finally went to war over its possession. In 930 A. D. the laws of Wales put the value of the Irish dog at twice the value of a work horse and affixed a penalty of its full value. Through



hundreds of years these dogs were the most valuable presents that could be made to Royalty. With the elimination of Wolves early in the eighteenth century, the usefulness of this great dog began to dwindle and about 60 years ago had almost been forgotten. At about that

time Capt. Graham, an English sportsman, secured a few specimens from Sir John Power of Kilfarnham and with judicious out crossing, brought back the Irish Wolfhound to its original high standard.

Fine male dogs weigh from 120 to 160 pounds and measure 30 to 36 inches at shoulder. Females are slighter in build. They have a lovable disposition and absolute loyalty is a strong characteristic. In fact the Irish Wolfhound is a real dog and one that may well be proud of its ancient lineage.

Directory of Irish Wolfhound Kennels

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William M. Leslie
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Newry Kennels
J. A. Stewart Porter

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LENOX, MASS.

West Highland White Terriers
White Persian Cats

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Some wonderful Siamese
and Persian Kittens now

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TOY COCKER SPANIELS

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Giant St. Bernard, Great Danes or Newfoundland Pups, German Shepherds and Dobermans, English, French and Boston Bulls, Dachshunds, Airedales, Chow-Chows, Toy Spaniels, Pomeranians, Scotch Collies, Pekingese, Italian Greyhounds, Persian and Angora Kittens. Always the Best, at Lowest Prices New York

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Only imported and high class matrons kept.

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Airedale Terriers

the greatest living sires. Champion an Swivel, Gold Reels and King an. Classic and bravest dogs bred. popular dog of the times, splendid companions, romping playmates, matchless watch game to the core. The Airedale is the all-round dog for the house, country or We make a specialty of intellectual ornament as well as fine physical quality. Puppies and grown stock, also registered matrons for sale. Safe delivery guaranteed. At stud.

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magnificent fifty pound dog. Stud fee \$10. Prices reasonable. Shipped on approval to responsible parties.

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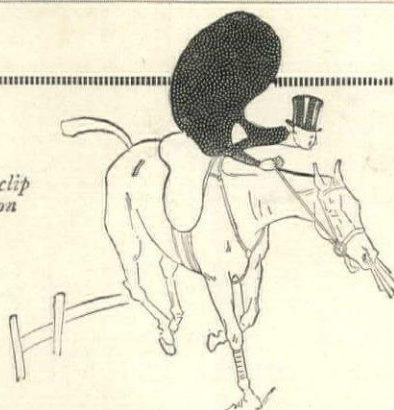
Ridgeway Kennels

Celebrated Imported Wire Haired Fox Terriers

AT STUD Puppies and Grown Stock Always for sale

Puppies from \$25 up
Ridgeway Kennels
Chas. Button, Mgr.
Box 51 :: Bayside, L. I.

A rush to clip the coupon



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—for a dollar

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449 Fourth Ave., New York City

CONDÉ NAST, Publisher

FRANK CROWNINSHIELD, Editor

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No. 4 Poultry House for 200 hens—5 units



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The Hodgson poultry and dog houses enable you to take care of the stock with the least amount of trouble. This dog kennel is well-ventilated, sanitary and stormproof. The poultry houses are made of red cedar, vermin-proofed, and are absolutely complete inside. All neatly painted and made in sections that can be quickly bolted together by anyone. Send for illustrated catalog.

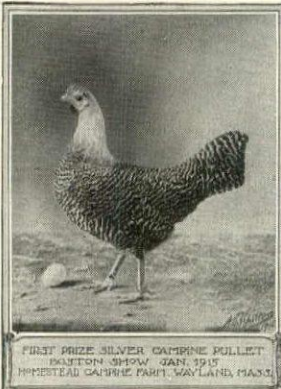
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Our new 1916 catalogue tells the story of this remarkable breed of fowl. If you are interested, we shall be pleased to send you a catalogue free. Ten cents for postage will be appreciated.

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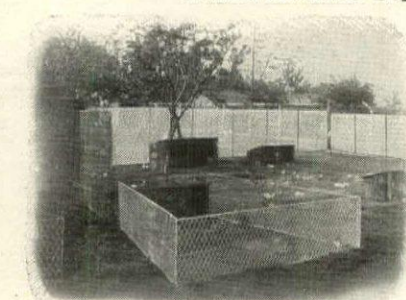
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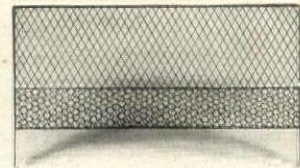
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Prices advance Sept. 1, 1916



7' long x 5' high (Six sections or more).
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Made in standard size sections as follows:

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Special sizes made to order.

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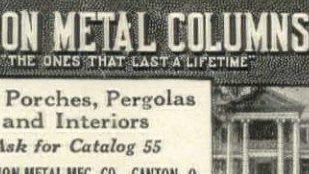
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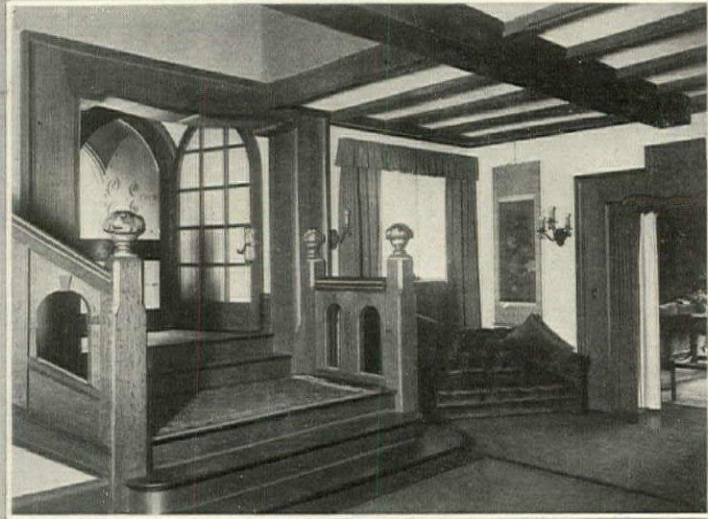
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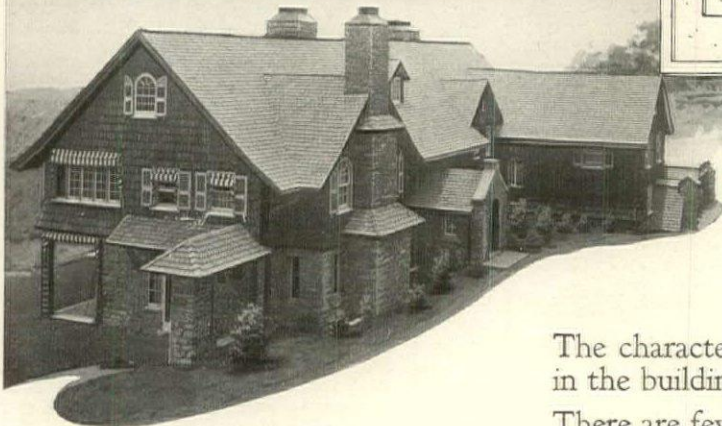
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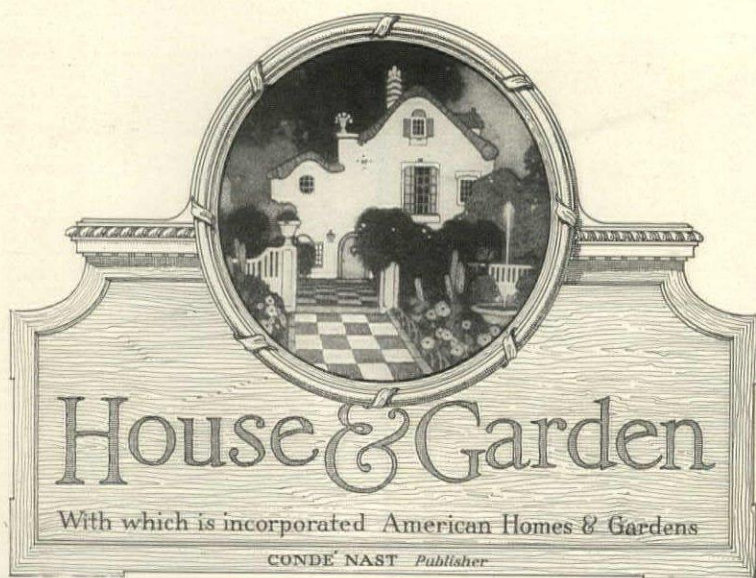
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AUGUST, 1916

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Frank Brangwyn is generally known as an artist. He is also a designer of furniture and a decorator. The September number shows his work

FALL FURNISHING

❑ Refurbish! Refurnish!

❑ Along those two lines the householder centers her activities in September, and on those two lines the September number has been planned. For the leader comes a striking article on English Interior Decoration, showing the work of Frank Brangwyn and Bailie Scott. Then follow a superb small house by Blood Tuttle, articles on Collecting Old and New Sevres Adjusting Furniture to Its Architectural Background, Rugs, The Care of Furniture, A Little Portfolio of Good Interiors, Apartment Decoration, two suburban residences of merit, pages of the newest rugs, furniture, fabrics, glassware and wall papers. For the gardener is a practical article on Making a Wall Garden, Transplanting House Plants and two pages of helpful suggestions on shrubbery planting, and two pages on Phlox, "the American Plant."

❑ Did you ever stop to think of the aims of HOUSE & GARDEN? *Vogue* tells the up-to-date woman what clothes to wear; *Vanity Fair*, what books to read, what pictures to see, what currents of modern life to touch. In the same measure does HOUSE & GARDEN tell her what architecture to choose for her house, how to furnish it, and with what garden to surround it.



James Gamble Rogers, architect

A PERGOLA ED PORTE COCHERE

Photograph by Gillies

The average porte cochere is a sorry thing; it is so obviously "stuck on," an architectural afterthought. Created as part of the structure itself, and treated with such dignity and charm as this corner glimpse shows, it is at once beautiful in itself and a real contribution to the ensemble of the house

HOUSE & GARDEN

AUGUST, 1916

THE GASOLINE AUTOMOBILE of TOMORROW

An Attempt at a Prophecy Based on the Immeasurable Superiority
of the Present Car Over the Original

ERNEST A. STEPHENS

HABIT is so strongly developed in the human make-up that it will probably continue to cause the motorist to speak of a friend's car as being of the 1912 type, thereby inferring to those wise in automobile matters that he himself is the happy possessor of a creation of the midsummer of 1916. Although this method has been probably the most convenient way of fixing the gulf which heretofore has widened from year to year in marking the advance in design, material and equipment of the modern motor car, such a remark no longer indicates the marked differences which existed yesterday and which tomorrow will be things of tradition.

STANDARDIZATION OF DESIGN

Individuality will still find its expression in the refinements of detail which come to produce approximate hundred per cent efficiency in the propelling mechanism which may add to the comfort of the occupants of the car, but otherwise the early defined line of demarcation which separated one season's products from preceding one's will nearly vanish.

This degree of absolute standardization is strongly indicated by the recent trend of thought in the automobile engineering world, and it would be premature to conclude that it is in any sense an accomplished fact, but that standardization in all things connected with the pleasure car was to be believed in the near future. It is true that the fundamental principles governing the operation of the internal combustion engine, the transmission and the final drive to the rear

wheels are recognized in present practice to a point where standardization may be said to have been effected, but outside these and a few others the imagination of the designer has had full play.

Before dealing with the probable or possible differences which the car of tomorrow is likely to exhibit when compared with its immediate predecessors, it may not be out of place to observe that the total output of the American car factories was about 35,000 in 1906; over 200,000 in 1911, and in the following year, which saw the introduction of electrical starting and lighting in commercial form, the number of cars produced was almost double that of the year before. Each year since has shown a substantial increase in the number of automobiles manufactured in the United States, a conservative estimate putting the figures for the present year at no less than 1,200,000 cars, despite serious difficulties encountered in obtaining supplies of raw material at any price.

Lessons derived in a great measure from the careful study of the automobile racing game, its failures and its successes, have enabled the automobile engineer to appreciate the advantages of a straight-line

drive shaft, the possibilities of improved spring suspension, the fact that pneumatic tires had passed the experimental stage, and that the use of light pistons and connecting rods meant something of much greater importance than the mere saving of weight only. The information gained from racing experience, in conjunction with that afforded by exhaustive laboratory research, has played its part in the evolution of the touring car of today and thus the motorist is reaping the benefit in the form of a pleasure automobile which, although not even approaching finality in design or materials, is to all intents and purposes a production which combines efficiency and comfort in a distinctly marked degree.

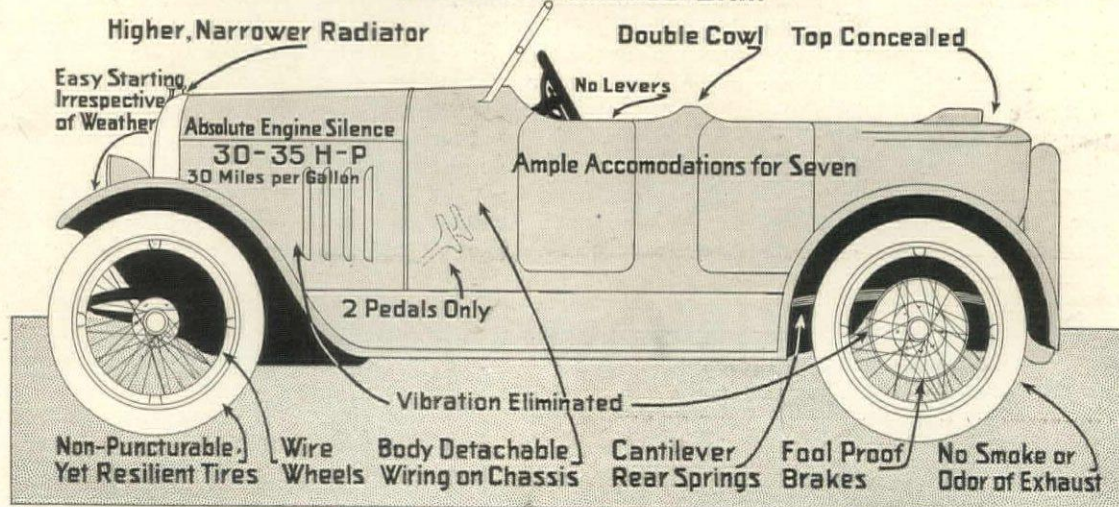
THE AVERAGE CAR OF 1916

An analysis of the various cars of 1916 gives an average automobile fitted with a relatively high-speed engine developing over forty horsepower under normal touring conditions. This engine is fitted with light and well-balanced pistons and connecting rods designed to assist materially in the reduction of vibration at high rotatory speeds. Disc and cone clutches run about fifty-fifty and the three-speed selective type

of transmission is almost universally used. Fuel is fed to the carburetor by means of a vacuum system, the tires are 33 x 4 inches, the average wheel-base is 120 inches, and the streamline touring body accommodates five passengers. The one really doubtful point about this average car is whether its engine has four or six cylinders. The figures are so close and commercial competition has improved

The Ultimate Car - A Suggestion

Low Initial Cost - Minimum Running Expense -
No Need of Mechanical Skill



both types to such a degree within the past twelve months that the prospective possessor of a six might conceivably match coins with another who expressed his preference for a four and either might be well content to win or lose so far as any actual engine difference under normal service conditions were concerned.

The year was also marked by the invasion of the multi-cylinder type of engine, having either eight or twelve cylinders set in the form of a V, and occupying the same amount of space in the chassis as the four and the six respectively. These have proved successful to a marked degree, but to an extent their use has been confined to those motorists who do not come under the heading of "men of moderate means." 1916 is also identified with a renaissance in the art of body building, and some of the productions are seemingly emblematic of those which will feature in connection with the car of tomorrow. These will be referred to again in the course of this article.

Before leaving friend car of today, it will be profitable to enumerate several little things with which it is fitted and to refer to some of the promises it makes but does not invariably perform. It is fitted with tires which on rare occasions blow out and more frequently puncture, it has gear and brake levers which are both unsightly and awkward (abominations in the sight of the driver). It has brakes which need better attention than they usually receive, an exhaust which seems to delight in the emission of black, evil-smelling smoke, and a carburetor which sometimes fails to cope adequately with the mixed fuels masquerading under the name of gasoline. Assuming that the carburetor is really efficient despite the handicap under which it is expected to operate, the motorist may travel some fifteen miles or so on each gallon of alleged fuel, costing possibly thirty cents. To the foregoing add lubricating and cooling systems of more or less complex nature, recollect possible troubles in connection with them and, finally, feel somewhat surprised at the confidence you repose in your car. Remember that this confidence is fully justified just for so long as the personal equation is taken into account and that the various parts of the car's soul (and streamline body) receive the attention they demand as a return for faithful service rendered.

WHAT THE PERFECT CAR SHOULD BE

Let it be assumed as an axiom that the perfect automobile should be the vehicle of the individual owner plus his family, that it should enable them to leave the beaten paths and to strike out into the byways, that with it the pleasures of the countryside should take on a totally new aspect, in that the beauties of nature may be enjoyed to the full without dependency on any ulterior source of transportation and that, in short, the possession of a car confers upon its owner the right to assume part proprietorship with Henley in his immortal line, "I am the Master of my Fate, I am the Captain of my Soul," in a sense unknown by the individual forced to rely on railroads and live trammelled by timetables. Add to these the sense of freedom conferred by the ownership of a car on those who reside for a portion of the year twenty miles or more from the city and the theatre, and endeavor

to reconstruct the tragedy of former days, when the journey to or from town had to be undertaken, perhaps, by train, tube, trolley, ferry or wagon mixed in varying proportions, and with each change of method of transportation adding to the miseries of even a comparatively short trip. Compare the picture of the past with the present and, pursuing the line of thought, imagine what tomorrow or the day after may bring in the way of added refinement and luxury to what is now a pleasant enough trip.

THE CAR OF TOMORROW

Present indications are that the car which, under the old order, would be referred to as the 1917 model will differ but little in outward appearance from the products of the present year. The body may hang a little lower, owing, principally, to the fact that the springs will be more nearly flat. Efforts may be made to reduce the present average wheelbase of a hundred and twenty inches by about four inches.

THE GROWTH OF THE AMERICAN AUTOMOBILE

Year	Cars Built	Total Value	Average Price
1899	3,700	\$4,750,000	\$1,284
1903	11,000	12,650,000	1,150
1904	21,700	30,000,000	1,382
1905	25,000	40,000,000	1,600
1906	34,000	62,900,000	1,850
1907	44,000	93,400,000	2,123
1908	85,000	137,800,000	1,602
1909	126,500	164,200,000	1,298
1910	187,000	225,000,000	1,203
1911	210,000	226,500,000	1,078
1912	378,000	373,000,000	987
1913	485,000	425,000,000	878
1914	515,000	490,000,000	951
1915	892,000	723,000,000	811
*1916	1,200,000	900,000,000	750

*Estimated

This reduction will be, however, effected by a readjustment of the spring suspension, and the body capacity will be in no way reduced. Radiators will be just a little higher and a trifle narrower, and the general effect of these deviations from the present type will be that the car will appear more compact than formerly. In many cases the streamline of the body will be slightly broken by the top of a cowl located between the front and rear compartments. Especial attention will be given to the interior appointments of the touring body, which will, in many cases, be fitted with individual seats arranged to swivel around, as is the case in some of the more luxurious covered cars at present. Interior and step illuminating electric lights will come into more general use, cigar lighters and hair curler heaters will be included in the regular equipment, and in fact the touring car of the immediate future will be turned out with many of those little refinements which have hitherto been confined almost exclusively to the limousine or sedan.

In the case of the coming enclosed car

of standard type there are already instances of the interior decoration scheme being designed by famous modistes and it is more certain that many of the leading builders will surpass all previous efforts in regard to appropriate trimmings and interior furnishings that are tasteful and practical.

For the motorist who loves the open country and who also is partial to the theater or the dance, but who is able to keep one car only, the rapid development of the detachable type of covered body has proved a stroke of good fortune. This type is designed that it may be readily installed on the regular touring body when needed, and as quickly removed when not required without the use of special tools or the employment of a mechanic. The possession of such a body enables the owner to thoroughly enjoy a winter trip, fully protected from inclement weather, at a cost which is relatively exceedingly low. A year ago many of these detachable bodies were likely to give trouble through rattling or other causes, but more perfect designing and workmanship have removed these faults.

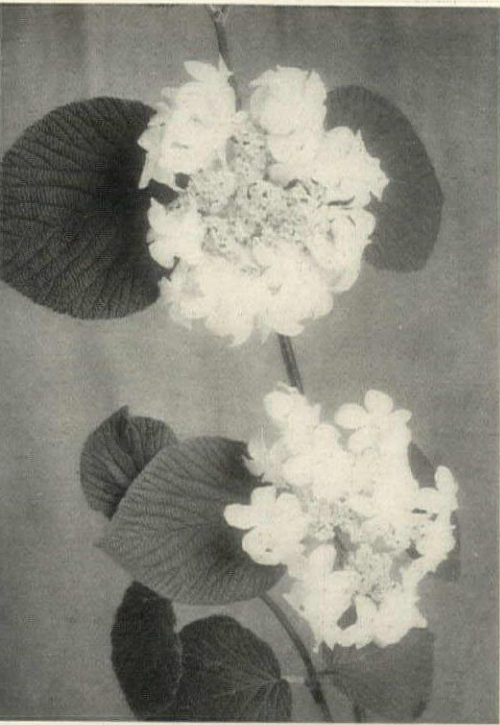
There were no radical mechanical changes in 1916, although the sum of many minor improvements effected during the year left their mark on the automobile as a whole and materially improved it. The car of to-morrow will continue to gain in mechanical efficiency along similar lines. No very startling changes are likely to occur in the near future, but the pleasure automobile inspected at the national shows early in 1917 is presumed to be equipped with a block engine having reciprocating parts of reduced weight and accurate balance. The small bore cylinder will continue to gain in popularity and the engine will form a unit with the clutch and transmission. Improved methods of carburetor adjustment will be strongly evidenced, and it is anticipated that the vacuum type of fuel feed will be used almost universally.

ELECTRIFICATION AND TRANSMISSION

All cars, except the very low-priced productions, will be fitted with engine driven tire pumps, and it is estimated that ninety-nine models out of each hundred will be fitted with electrically-operated

starting and lighting systems of improved type and greatly reduced weight. As a rule the ignition will be cared for by the general electric system, the individual magnetos being used in comparatively few cars. There is a strong tendency towards simplification of methods of lubrication, oil bolts with reservoirs taking the place of the conventional grease cups in some cases. An almost revolutionary development in this direction is the introduction of a system whereby the work of filling up with lubricant is rendered necessary only about twice a year.

The only opponents to the almost universally employed selective type of transmission are the magnetic and the hydraulic types. The former has been developed to a point which apparently closely approaches perfection, and it seems likely to attain popularity in the near future in a marked degree. The hydraulic system, although by any means new in principle, has not been developed to any extent in its application to the pleasure car. It may, however, prove to be a force to be reckoned with before very long.



The common hobble-bush, one of the viburnum family, shows handsome white flowers and large leaves turning red in autumn

GARDENING WITH THE CAR

Wherein the Lover of Native Shrubs and Plants Finds Endless Pleasure

CAROLINE M. RICE



Shad-bush is one of our best and earliest flowering wild shrubs. Its white blossoms open almost before the leaves



Among the dogwoods, considerable variety is available for the maker of native gardens. This is the alternate-leaved form

NATIVE gardening for the amateur is a new art, though the soft beauty of the landscape work in our modern city parks has become a source of refreshment and pleasure to thousands of people. But the fact is not realized by many people that the high-priced artists who have created it get some of their best effects by copying directly from nature and frequently use exclusively native flowers and shrubs. These very plants are growing wild and free in our woods and along our country roads. Almost everyone is somehow or other within reach of the country, especially by motor, and the art of landscape gardening need not be given over entirely to the professional if we once begin to appreciate the possibilities of our woodland plants.

One of the greatest joys in native gardening the amateur finds in gathering his own material and working out his own design. If he wishes to develop it without professional aid, he will take pleasure in the designing of open spaces and banks of greenery. And the procuring of the desired plants and vines year by year may lead—particularly if he has a useful automobile and some boys and girls to assist in the search—to woodland expeditions of long remembered benefit and delight.

WHAT NATIVE GARDENING MEANS

The new native planting does not consist in placing specimen plants of one's favorite flowers in uncongenial proximity in hard formal beds, to be laboriously sheltered through the winter in hothouses or renewed every year with labor and expense. Once planted it requires little care beyond occasional pruning. The plants, growing in their native habitat, withstand undaunted the summer's heat and winter's cold. Moreover, whereas the cultivated garden is a mudbank, as someone says, for half the year, this with its varied foliage and its winter color in stems and berries has a new beauty with every season. It has permanence, it has virility, it is in harmony with the spirit of the locality.

"The lawn is the canvas on which the home picture is painted." If the house and

trees give the picture its main accent, it is the lawn spaces and the massing of shrubbery that give the final effect of symmetry and of light and shade. Nature's methods are followed as closely as possible. Harsh, ugly foundation lines disappear behind heavy plantings of shrubbery. Bed lines are never straight nor geometrical, but curve irregularly with careless grace. Flowers in masses give high lights of colors.

The size and situation of the grounds will determine whether one should leave open vistas, as is possible with plenty of space or on a hillside, or enclose a small yard with privacy to shut out the sight of ugly walls and surroundings. With small grounds the gardener should not attempt to get in miniature all the effects of a park, but should select one or two simpler ideas and carry them out. In the end, whether the place be large or small, if he follows the correct general principles, he will give his grounds a distinction that was lacking under the old treatment of formality and restraint.

COLLECTING THE PLANTS

When the amateur native gardener has worked out a design suitable to the ground he is to develop, he next considers what vines, shrubs, flowers and trees can be found in his locality suitable to his purpose. If he thinks there will be little material at hand, let him try what can be done within ten miles of his home, and he will be pleasantly surprised. If he is possessed of the true nature lover's spirit, he may develop the enthusiasm of a collector.

Yet it is well to remember to have a conscience as to where the plants are obtained. The immediate roadside should never be despoiled, nor any woodland nook shorn of

its beauty. Sometimes permission should be obtained from the owner of the property. As the fall is generally the best time for transplanting, one possible method of selecting is to go through the woods or meadows when the plants are in their prime, marking choice specimens with bits of tape or colored wool. These can be noted and procured later at the proper season. One advantage of seeking one's own plants is that it takes one to see the woods under the changing lights of the varying seasons of the year. Even trees do not present too difficult a problem for the amateur landscape lover; he is planting for the future.

The shrub planting is a very interesting part of landscape work. The shrub border serves with softening effect as a background, as a boundary, or for foundation planting as against the house, and if properly selected is attractive on its own account at all seasons of the year. In spring the blossoms begin, to be followed by a variety of shades of massed foliage and late summer flowers; then its scarlet, gold and purple leaves give an autumn tone, while bright berries and even stems of striking colorings give pleasure in a dreary winter landscape.

WILD SHRUBS AND VINES

Our countryside affords a great variety of shrubs excellent for these purposes. Counted as small trees or tall shrubs for the background in the taller border are the larger varieties of sumac, handsome with their plume-like red fruit panicles; the sheep or nanny-berry; black haw holding aloft its white summer flower tufts and conspicuous fruiting, and the sassafras, which turns to soft orange and red in autumn. The elderberry is beautiful with its fragrant white flowers and purple berry clusters. The hazelnut droops its long catkins in early spring and later bears its nuts in oddly-ruffled fruit husks. The bright yellow blossoms of the witch hazel come very late in the fall. The dogwood, especially desirable, has white flowers, but berries and twigs of various colorings according to the variety. The stems of the willows, too, add to the winter garden. The viburnums—arrow

wood and the high bush cranberry—are especially good.

Of the medium sized shrubs the coral berry, or Indian currant, is most useful in all landscape work, covering steep banks and mingling its berries in the border. Others are the maple-leaved viburnum and the fragrant sumac. Wild blackberries and raspberries can be used. Chokeberries for a loamy soil (the black and the red planted in contrasting groups), and lead plant for rocky slopes are both valuable for massing. But wild roses should be a chief delight, and there are many varieties. The prairie rose, very hardy, with profuse blossoming and bright red hips, is the best of all.

PLANTING ARRANGEMENTS

For the best effects in the shrub border too much sprinkling in of the different kinds is not good. Better is a massing in groups of a dozen or more of one sort, with three or four plants of unusual character scattered through to accent the different seasons with their blooming. Some attention must be paid to the nature of the ground, whether it be wet or dry, of light soil or rich, or shady or exposed, as certain shrubs require special conditions. Most of the varieties mentioned will grow in a wide range of soil. As for pruning it should be done not all at once in the spring, but from time to time after each sort has done blooming. Of shrubs that attract wild birds, it is known that the elderberries are used as food by fifty-seven varieties of birds and the dogwood and sumac by forty-seven each. Wild cherries, too, are good for this.

What charming effects can be secured with vines! The sunny porch is shaded, the shady porch is framed in clambering festoons, an unsightly wall transformed into a fall of living green; an airy pergola tosses

ALL-YEAR NATIVE SHRUBS

- Silky dogwood (*Cornus sericea*)—White flowers in June; light green foliage; orange and purple, blue berries in autumn; purple stems in winter.
- Grey stemmed dogwood (*C. paniculata*)—White flowers in June; dark green foliage; rose to orange, white berries in fall; grey stems in winter.
- Arrow-wood (*Viburnum dentatum*)—White flowers in May or June; true green, glossy, dentated leaves; rich purple, bright blue berries in fall; light brown stems in winter.
- Sheepberry (*Viburnum lentago*)—Creamy white flowers in June; light green, glossy leaves; orange, with large blue-black berries in autumn; grey stems in winter.
- Highbush cranberry (*Viburnum opulus*)—White flowers in May and June; red-green leaves; purple and bronze with brilliant scarlet berries in autumn; light stems in winter.
- Ninebark (*Spiraea opulifolia*)—White to cream flowers in June; yellow green foliage, red seed pods in July; yellow in fall; light tan, peeling bark in winter.

PLANTS FOR FLOWERS, FOLIAGE OR FRUIT

- Elder (*Sambucus Canadensis*)—Large lacy umbels of white flowers in July; black berries in August.
- Wild roses (*Rosa blanda, setigera*, etc.)—Pink flowers in May, June or July; red fruits in fall or winter.
- Wild crab-apple (*Pyrus coronaria*)—Pink flowers in early spring.
- Redbud (*Cercis Canadensis*)—Purplish pink flowers in April and May.
- Witch-hazel (*Hamamelis virginica*)—Yellow flowers after leaves have fallen in October, November and December. Foliage yellow in autumn.

OTHER GOOD PLANTS

- Smooth sumac—Good all season for beautiful foliage which becomes brilliant red in autumn. Attractive red seed pods.
- Fragrant sumac—Fragrant, very dark green foliage; pea-size red berries in July.

respond attractively to cultivation. Among the most vigorous and beautiful of native vines is the wild grape. This should have plenty of room, as it often grows to a height of 40'. For a pergola it is very handsome, the long sprays of well shaped and expectant tendrils swaying gracefully from the denser masses.

FLOWER SORTS TO GATHER

As for flowers, here our garden is so different from the old flower bed type that our grandmothers might have asked where the garden was! That is it—it is nowhere, for it is everywhere. The whole place is a garden. And instead of herding flowers to some small remote space to which one may occasionally find one's way, we have them banked under or against the shrubbery, running down a hillside, or colonized in an open space beneath the trees, perhaps rioting in a green and unexpected nook; clumps and masses of wild asters, phlox, bluebells, wind flowers or wild lilies. To those who love them these wild flowers have a more delicate and spiritual beauty and grace than the cultivated species.

Other native flowers are columbines, coreopsis, and, near a waterside, wild blue flag, the handsome hibiscus, bearing flowers 3" or more across (it is useful, too, as a border shrub), and the modest but free blooming little spider-wort. A handsome eastern garden has a walk massed with yellow cone flowers, which are among our commonest wayside blossoms. Goldenrod in its many plummy varieties is effective, but it impoverishes the soil, killing its weaker neighbors, and can be introduced only sparingly. These prairie flowers grow in their native habitat, with a protection of tangled grass roots and decaying vegetation. Wild flowers are best moved in the fall, set out in the afternoon, and shaded a few days.

with sprays. Only vines must be pruned sufficiently to keep the growth from becoming rank. The well-known Virginia Creeper is good for such uses, but is liable to bring insects about the veranda. Virgin's Bower is a dainty native clematis. Bittersweet is a familiar autumn sight climbing fence corners along country roads, hanging thick with clusters of yellow berries, split to show their scarlet centers; but it is not so often used as it should be for covering walls and trellises. The trumpet creeper, a handsome vine, is native as far north as Illinois and Pennsylvania. The moonseed, when brought in from the woods and cultivated, becomes a beautiful climbing vine. Then, too, wild smilaxes, the green brier and the cat brier



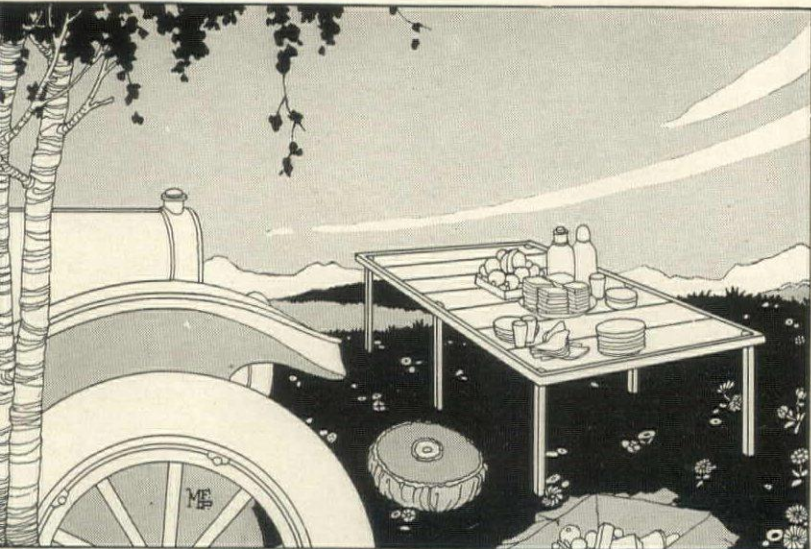
The flowers of the string cherry are followed by fruits beloved by the birds



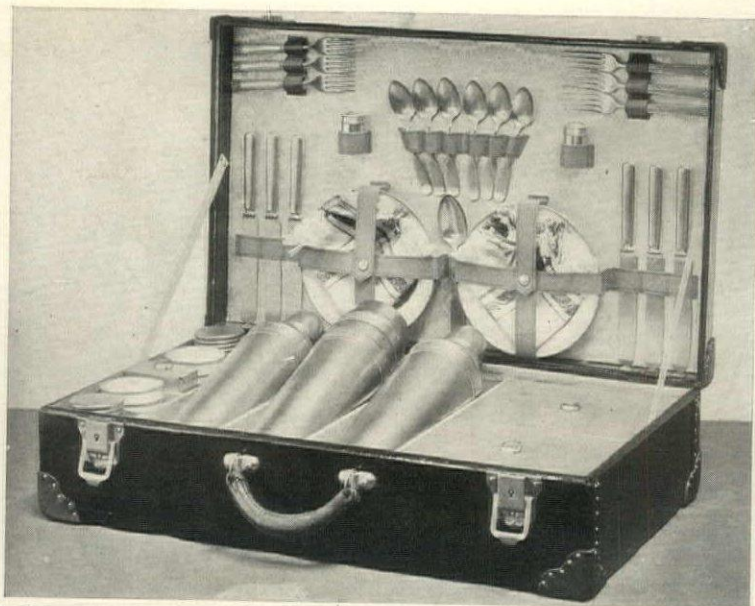
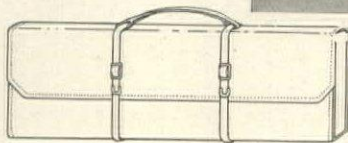
The red berried elder blooms a month or two earlier than the common kind



Pin cherries grow from 20' to 40' high; their flowers come with the leaves



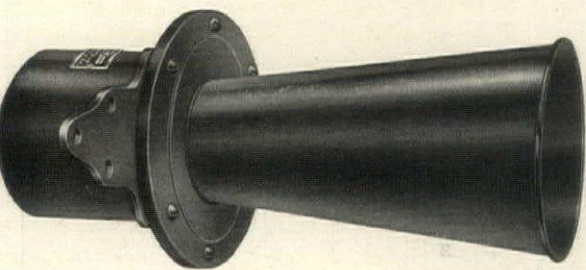
Folded up, this table occupies only 1½" x 9" x 24". Unfolded it is a complete table 2' wide by 4' long, amply strong for luncheon parties. The wood is birch. All metal parts are rust-proofed. \$5



The latest thermos suitcase is a restaurant for six people. The case is wood covered with glazed Therduc. Complete with three bottles, two metal food boxes, sugar box, butter jar and six sets of spoons, forks, knives, etc. \$45

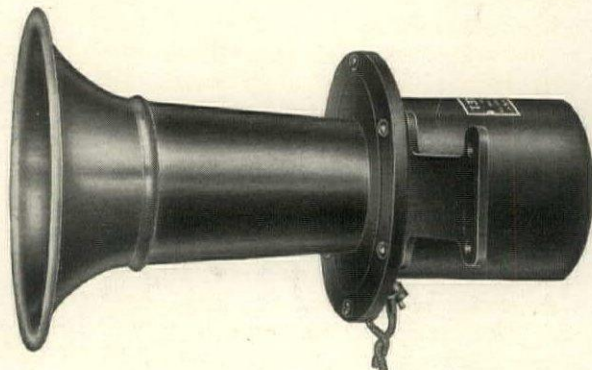
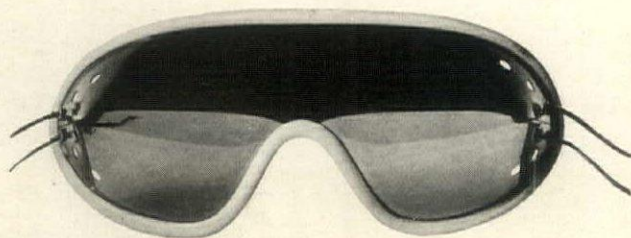
ULTIMATE TOUCHES OF MOTOR COMFORT

As manufacturers confess their inability to improve the machinery, they have turned their energies to improving the comforts and conveniences of the cars. These are a few of their efforts. For the names of shops address HOUSE & GARDEN. They may be purchased through the HOUSE & GARDEN Shopping Service, 440 Fourth Avenue, New York City



The O. H. Klaxet may be used either outside or in, being driven by motor and making a racket to be heard half a mile away

The binding is soft, white washable rubber, the lights green and amber or orange and amber, making a restful, convenient goggle. 75c.



Designed to go under the hood, the O. H. Klaxon is a powerful horn with a motor that makes 30,000 noise contacts a minute



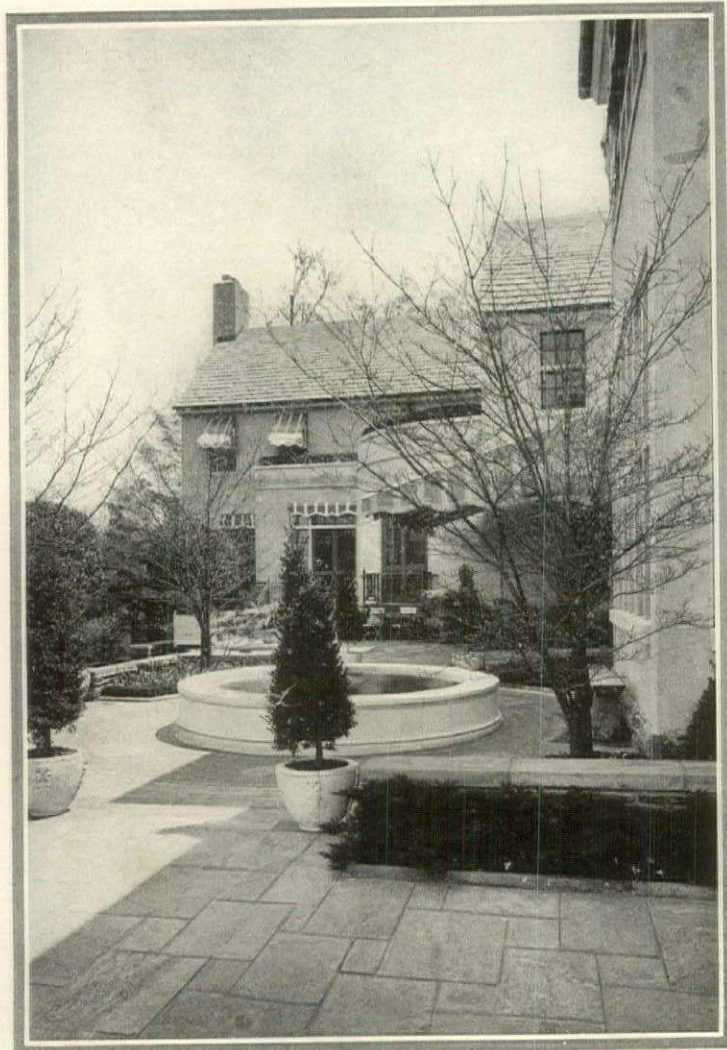
The top tray of this auto wardrobe trunk is so made that it can be left standing. Made of heavy coated black keratol and leather



Designed for cars with limited tonneau space, this running board motor restaurant is equipped with two Thermos bottles, food jar, two metal food boxes and six sets of forks, spoons, knives, etc., \$50. For seven persons, \$1.50 extra



The house stands at the top of a slight rise with broad lawns stretching about it on all sides. Dense shrubbery planting and tall trees in the immediate vicinity of the terrace assure privacy. The construction is plaster over stone; the architecture, modern English domestic based on Tudor precedents with a strong Italian feeling incorporated



From a decorative standpoint the music room is an unusual but successful combination of periods. The furnishings are mainly Adam and the room is a mixture of Adam and Italian Renaissance

“BROOKFIELD”

Meritorious For Its Architecture, Its
Furnishings and Its Garden Setting

WILSON EYRE & McILVAINE, *architects*

The east terrace is paved with slabs of native stone. In the middle is a marble basin surrounded by a design in vari-colored tiles. Striped awnings and box trees lend intimacy



In the library the plaster walls are sand finished, the same tone enriching the moulded plaster ceiling. The curtains are casement cloth. The woodwork is confined to the built-in bookcases and the chimney, the oak being simply paneled with classical pillars at either side. The room may be characterized as having a strong Tudor feeling



In one of the bedrooms is a set of black and gold lacquer decorated with Chinese designs, while the chair is Queen Anne, the lines of the bed are unusual but suitable for that type of decoration

COUNTRY HOUSE

The Residence of Jay Cooke III, Esq.,
at Chestnut Hill, Philadelphia

The English spirit that characterizes the other rooms is maintained in the dining-room. Here is used an excellent set of Chippendale. The window shades are of the old-fashioned painted type



IN 1492 Columbus discovered America. About 400 years later Americans discovered the country. It came about somewhat in this fashion:

Groups of idealistic young men, many of them still sporting their senior honors, began to burn with a great zeal for social uplift. They saw the crowded cities, and wept. They saw the shoddy output of American factories and American factory life, and set themselves to right matters. The road to salvation, they pointed out, led back to the land. Having found that road, they themselves walked upon it, as an example to the nation. In various sections of the country sprang up communities, many of them co-operative and communistic, devoted to reclamation of farm lands, the revival of handicraft and the intensive simple life.

The papers were full of it at the time. Likewise was the market flooded with all manner of handmade articles—rag rugs, bayberry dips, Colonial chairs and pottery. . . . Then, somehow, the movement petered out.

THE town of M—— in the Connecticut Valley was the center of just such a community. Now M—— is no different from a dozen other New England villages. It consists of one main street and a sprouting of muddy side lanes. On the common stand the two churches, the postoffice, the general store, the hotel and the town hall. The houses are all painted white with green shutters. The inhabitants are either very old or very young, for the youths seek the city as soon as they reach the earning age. The only organization, apart from the Dorcas Circle and the Grange, are a Thief Detecting Society, with a history as ancient and honorable as the Ancient and Honorable Artillery of Boston—and as useless; and a safe and sane Shakespeare Club which meets once a month to read aloud from a Bowdlerized edition, the men of the class re-reading the passages out of an unexpurgated copy the next morning in the back room of Bart Simm's general store. It goes without saying that life in M—— is truly rural—to the *nth* degree of *x*.

To this town came a band of zealous young men. They bore the torch of the great movement. And they were sincere, do not be mistaken, and hard-working and self-sacrificing. Land was bought, a co-operative mill erected and the community started in on its handmade life. The natives viewed these newcomers with suspicion, but when reporters began traveling all the way from the city to write up the movement, they were won over. M——, which had not been on the map since the Indians held a massacring festival there several generations back, blossomed in this effulgence of newspaper publicity. Moreover, the movement showed progress; newcomers joined the band; the natives lent their aid. It looked as though the world was going to be saved. America stood a good chance of having her cities depopulated and her factory problems solved.

To-day the movement is rarely mentioned in M——. The natives dismiss it with few words. In a barn down the brook the hand looms are falling to bits and the hand presses and the bayberry dip moulds and the potters' wheels are all rusting away. Some of the men are left; they have gotten their feet on the earth and they form the nucleus of a delightful intellectual circle.

The movement failed, failed as it did in a dozen such centers. And yet, despite the failure of these zealous backers to the land, America has seen a steady increase in country living and farm reclamation during the past decade. The problem the dreamers were helpless to solve is being gradually solved to-day. What they tried to do by hand is being accomplished by machine. Modernity triumphed over mediævalism.

Salvation still lies along the road that leads back to the land, but the men and women are being led there by the automobile. In short, it is the Gasoline Trail that leads back to the land, for the automobile has made country living possible for the city man, and he delights in his new-found existence.

BACK BY THE GASOLINE TRAIL

people will put up with on the road. And you can also trace the trend of a nation's life by following traffic to its destination. The Korean ox team lumbering along through the slough of mud as striking an epitome of Korea as a twin-six bowling down macadam stretch is of America. The Korean team goes to farmhouse that is about as tumbledown as the road and as out of date as the oxen; and the twin-six turns into a place that is relatively as modern as the macadam it has spun upon.

The Gasoline Trail goes as far back to the land as the road will allow, and every step of its way is marked with progress. At first it boomed the suburbs. To-day it is booming the country, the better roads stretching out farther and farther from the city. At present no less than 6,000,000 families live on farms in the country, and the number is increasing.

There are to-day more gentlemen farmers than a decade ago, more old country places being renovated and rebuilt to suit modern living, more country villages taking a fresh lease on life because of the influx of up-to-date ambitions and wide-awake views brought by new inhabitants from the city.

No one dares prophesy what the end will be. Doubtless the price of cars will come down even lower than the reachable price of to-day. Doubtless some modern magician will find a cheap substitute for gasoline. In that day our 2,500,000 automobile owners will leap to 5,000,000. While this will not clear the slums or solve factory conditions, it will mean a greater migration countryward. City folk will become convinced that fresh air is better to breathe than smoke and grime, silence better than racket, fresh vegetables better than canned, flowers from one's own garden more pleasing than flowers from a corner florist. Once convinced of this, the joys of a handmade country life will seize them, and what the dreamers of the 90's strove to do will be accomplished in good time. Already the light is up on the horizon; but it is the glow from electric headlights. Already the host of heard moving; but it is the hum from countless motors. The old order changes, yielding place to the new, and Ford reveals himself in many ways.

BUT to return to M——. The only benefit it derived from the invasion of the Back-to-the-Land was the publicity, the tiny circle of intellectuals and a wealth of wisdom and the inability of some folks to pay their bills. M—— is scarcely any better to-day for the community having lived there. But M—— is better for the men of the town who have bought automobiles, for the farmers thereabouts who have aspired to flivvers and for the tides of automobile traffic that pass back and forth along the one long house-lined Main Street. The automobile has made M—— "loosen up" live down the parsimonious reputation of its New England forefathers. It has made the county officials fix roads and keep them fixed, and it has brought a host of people to the town who never before heard of the place. Ten years from now the youths will be content to remain in town. Already

when you talk to the natives, you do not hear them complain about how hard it is to live up there away from all the city and convenience. For this the automobile does. For city folk it makes country living possible and for country folks its making country living livable.

Life in M—— is beginning to look up with a vengeance. It broke out into a town masque last year, and Shakespeare is being played *al fresco* (from the unexpurgated) by otherwise staid and theatre-aborring natives. This spring the Thief Detecting Society aspired to—and accomplished—a seven course dinner, served in the way banquets are at the Waldorf. The latest dispatch brings the news that the town fathers have clubbed together and purchased a fire engine—not one of yesteryear's old horse-drawn vehicle by Heck, but a brand-new, sure-enough, honest-to-goodness automobile fire engine!



HERMITAGE

*Oh, for a country place I know
Where elms stand in a windy row
Where larches frame the crimson sun
And maples turn vermilion
And branchy oaks stand wide and still
Each like a green, inverted hill
There when I'd dreamed a day or two
I'd have a room made neat for you—
For trees, they are such lonesome things
With all their leaves and whisperings!*

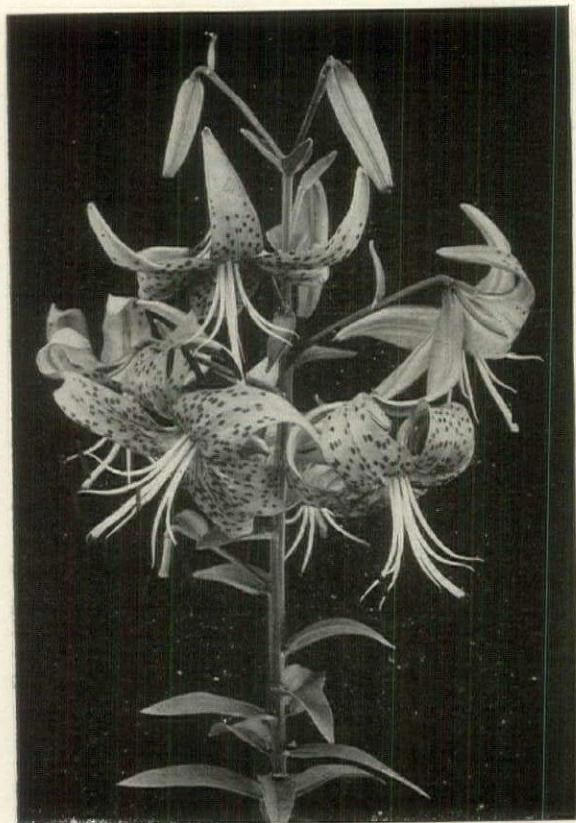
HARRY KEMP.



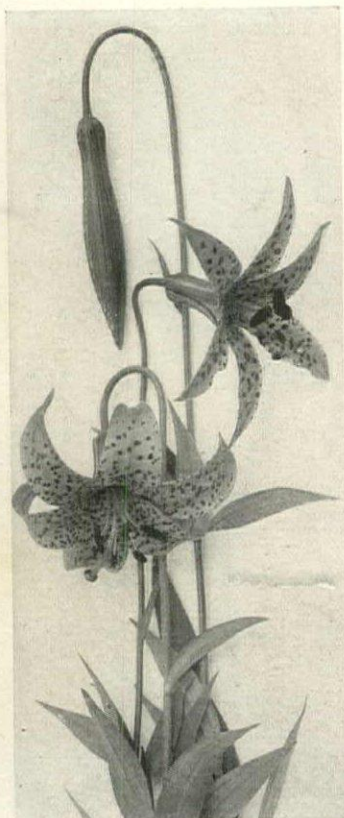
on Eyre & McIlvaine, architects

A GARDEN THRESHOLD

It is best to come into a garden by slow degrees. The grilled gate, the low steps, the shadowed path—by such stages is the beauty reached. This is the progress of one who visits the garden that surrounds the residence of Jay Cook III, Esq., at Chestnut Hill, Philadelphia



In the fully open blooms of *Lilium tigrinum* the petals curl back until they almost touch the base of the flower



L. Canadense, var. *flavum*, is an easy-to-grow yellow sort



A transparent carmine red, seeming to be laid over white, characterizes the Turk's cap *L. speciosum* var. *rubrum*

CONSIDERING THE LILIES

The Flower of a Hundred Sorts Which Always Come True
A Score of Good Varieties for the Garden

GRACE TABOR

NOTWITHSTANDING all its subdivisions and subgenera, the lily has one striking peculiarity: it defies hybridization—or it has seemed to, thus far. All the lilies in the world appear to have been created by divine fiat, and finished. And man's efforts and interferences are, in their case, of no avail in changing them.

This is not to say that no hybrids have ever been grown. There have been a great many, as a matter of fact, for growers are by no means satisfied with what Nature has done for us in the way of lilies, any more than they are satisfied with what she has

done in the way of other plants, wide world over. The hundred-odd species and varieties which she has furnished are regarded by man as only a good beginning.

But though crossing has been accomplished hundreds of times, and seed has developed from such crossings which, being sown, has duly sprouted and produced tiny lily plants unlike either of the parents in appearance and unlike each other, blossoming time brings only the same old flowers. Verily it is a mystery.

Only one in all the long list of lilies is suspected of being a hybrid; and that is suspected only because it is not found wild anywhere in the world, while all the others are. Not being able to locate the place of its nativity, botanists are driven to the suspicion that this old Nankeen lily—*Lilium testaceum*—may be a cross between the true Madonna lily of southern Europe and *Lilium Chalcedonicum* of Greece.

DIFFERENT TRUE FORMS

Most familiar of all forms, because we all know it in the common tiger lily of old dooryards, is the "Turk's cap"—literally just that. In this form the petals, or perianth segments, as they call them in lilies, are curved or rolled back until their tips almost touch the base of the flower where it joins the stem. In some species the evenness of this rolling back or recurving is quite remarkable, while in others it is noticeably irregular. The tiger lily is one of the latter, its segments frequently showing a twist as well as the recurve.

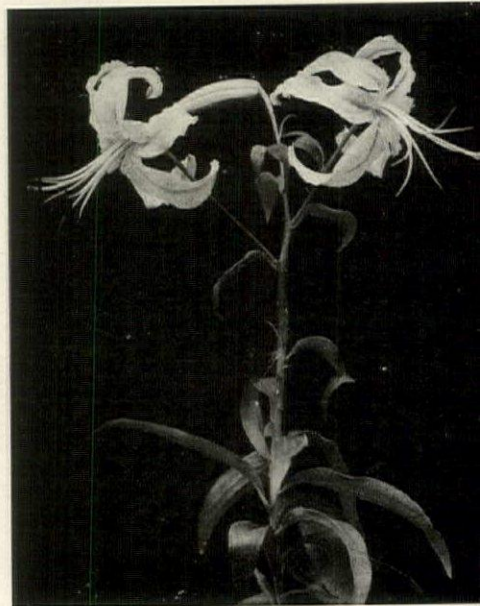
The plant which everyone knows as the Easter lily in this part of the world, but

which is not the true Madonna lily at is probably the next best known lily; and may stand as the representative of the new form—the funnel or trumpet shaped. In this the segments curve outward from rather long tube of the flower, but do not recurve so decidedly, though in some they do a little. The flowers, however, are distinctly like a trumpet when analyzed.

The two remaining forms are practically only one, the difference being in the way the flowers hang on their stems rather than their shape. Spreading and but very slightly outward curving, their segments are form



The "gold banded lily of Japan" is white with golden bands, and studded with purple spots. The flowers are 6" or 8" across



Nearly pure white, *L. speciosum*, var. *album*, is a strikingly handsome lily, though less thrifty than the red form

make them look like dainty bells in their outlines; but one group is upstanding, forming natural cups or chalices, while the other droops and nods and sways for the world as if it were actually a set of elfin chimes. So the first is called the cup or chalice form, while the other is appropriately known as bell shaped.

THE COLORS OF LILIES

Thus we come to color. Well, there are just four distinct colors, including white, in the lily tribe, though there are several gradations which some list as separate colors. There are three degrees of shades of yellow, and there are red, pink and white. Some of the yellows are pale; some lean so to red that orange-red results; the reds are all scarlets or in the *speciosum* and *Japonicum* strains; and the pinks are all rosy or with a tendency toward mauve rather than the monochrome shade. Thus there are really two distinct reds to be considered: the scarlet, and the American Beauty rose or Burundi red. All of the pinks are related to the latter, and are hideously inharmonious with the former. So immediately it is apparent that these *speciosum* and Melpomene lilies must never be associated with any but the white lilies or others of their own kind; for there are no colors that clash more unpleasantly than these two separate reds.

At last we come to the final division of the lily family—the easy-to-grow and the not-easy-to-grow. With the former before us and the latter eliminated altogether, you are then ready to make your own special selection, fairly forewarned.

EASY SORTS TO GROW

Right at the beginning we must put *Lilium elegans*, from Japan. This may be passed as orange, though it is not always at that, being what growers call "variable." It is an erect or chalice lily, with several varieties. The one called *fulgens* is really very splendid, a deep orange-red. Another is *atrosanguinum*, darker and a deep, rich red—of the scarlet alliance, says remember. Variety *alutaceum* is a clear yellow, while *bicolor* is yellow at center and red farther out. Any one or more of these are practically as easy to grow as grass; you can hardly fail with them. Running a close second to *Lilium elegans* in its varieties is the Chinese *Lilium concolor*, which is bright scarlet, and its va-



The Madonna lily is superb in color and form. Take special pains to keep it free from disease after growth starts

riety *parthenocion*, which is a clear, true yellow. Confine yourself to one or the other of these species. There is not sufficient difference between them to warrant having both in one garden.

In the rose-red division *Lilium speciosum*, another from Japan, is supreme, and every garden ought to have a clump or mass of these, planted where you cannot see them and the scarlet lilies at the same time. For myself, I like them better than I do the more brilliant and glaring reds. *Lilium speciosum*, var. *rubrum*, is said to be more hardy and thrifty than the type (*L. specio-*

sum), but I have found them both perfectly satisfactory and no one will have any difficulty with either, I am sure. The type is almost white, overlaid with a delicate pink flush and dotted with rich red spots. It is a magnificent flower, indeed. The variety (*rubrum*) is a transparent carmine-red which also has the effect of being laid over white.

The darkest of all lilies is *L. Brownii*, held by some to be not a distinct species, but only a variety of *L. Japonicum*, being native to the same parts of Japan. Happily this is an "easy-to-grow" and especially recommended to beginners by the authorities. It is not as showy as some, but nevertheless is very attractive, for the inside is white, while outside it is deep red-purple, and the flowers are large and fine. It belongs to the trumpet-shaped class, as do all of the lily family that are white on the inside.

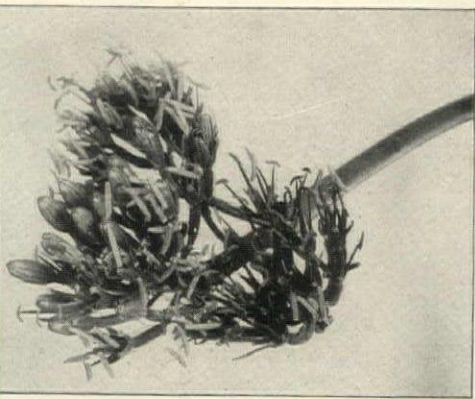
To this class the Easter lily of to-day belongs—*Lilium longiflorum* or *L. Harrisii*, according to whether the bulbs have been grown in Japan or Bermuda. The flowers of this are much longer than those of any other white lily that will grow in the garden, and it is as fine a garden lily as it is for pots, forced at Easter time—if you get healthy bulbs. To do this, buy *L. longiflorum* rather than the bulbs of *L. Harrisii*, for the Japan grown bulbs are not likely to be diseased, while those from Bermuda are almost sure to be.

DISEASE PREVENTION

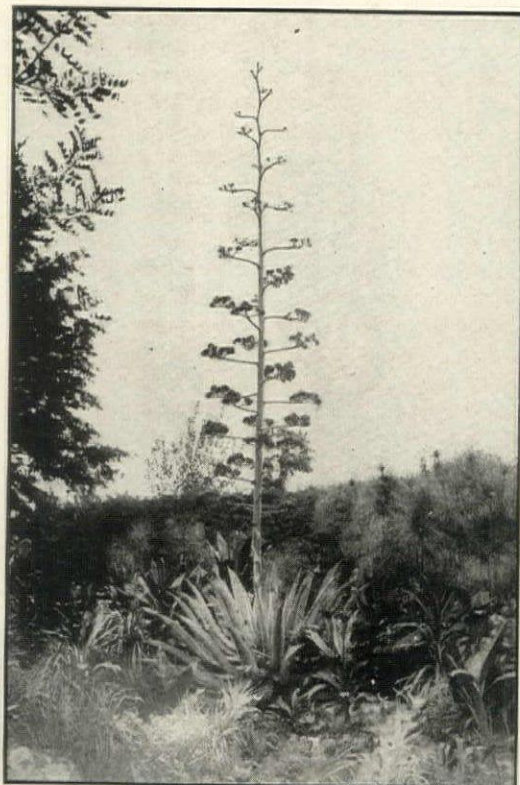
This Easter lily of to-day is not the true Madonna lily. This is seldom seen now, for its susceptibility to disease has made it unpopular. Then, too, *L. longiflorum* forces much more easily, and everyone seems to think an Easter lily must be a lily in a pot in the house at Easter time.

As far as the disease is concerned, it is with a lily just as it is with any other plant; there is absolutely no use in trying to cure a disease, after it has once taken hold. The only cure for plant diseases is prevention; therefore, to grow Annunciation lilies that are healthy and free from disease they must be kept healthy and free from it, from the instant they stick their heads above ground, by early and frequent sprayings with Bordeaux mixture. This gives the spores which cause the disease no opportunity to germinate, and this is absolutely the only way to control the situation.

(Continued on page 52)



The rather insignificant flowers are borne in upward curving clusters at the ends of horizontal, leafless stems



A single tall stalk rises from the basal leaves. This *Agave werklei* is a "century plant" and dies after blooming



Bulblets form on the flower stems and, dropping to the ground, take root and spring up after the parent dies

THE AGAVE — A STUDY IN SELF SOWING

Photographs by Dr. E. Bade

SILHOUETTES OLD AND NEW

Which Answers the Question of Who
was Silhouette and Why and How
Silhouettes were Made and Collected

GARDNER TEALL



Sarah, Dutchess of Devonshire. A silhouette to which has been added defining lines of white

In many instances the black was stippled on instead of being laid on flat, giving this effect

NEARLY a century and a half ago Johann Kaspar Lavater, of Zurich, wrote his famous work on physiognomy, laying great stress therein on the power of the outline of the human profile to express traits of character. That was before the silhouette had come to be known by this name. Then it was generally called a shade. "What," wrote Lavater, "is more imperfect than a portrait of the human figure drawn after the shade! And yet what truth does not this portrait possess! This spring, so scanty, is for that reason the more pure."

The silhouette offers a delightful field for the collector to browse in. Not only is the silhouette portrait, genre-subject or landscape, artistically interesting, but silhouettes are not difficult to acquire as compared with many other objects that attract the collector's fancy. Of course genuine original examples of the work of the most noted silhouette artists have been in demand these many years past, and the prices for such specimens is higher in consequence than for unsigned or unknown silhouettes. However, a very interesting plan is to combine the new with the old, to collect modern silhouettes as well as antique ones, for it is well to remember that modern silhouette artists display a skill in this artistic craft that does not suffer in comparison with the earlier silhouette cutters. It is an art that has endured.

As to the origin of the silhouette, tradition has it that Korinthea, daughter of Dibutades, who lived about 600 B. C., found the affections of her lover waning and realized that she would soon be left alone. In her sorrow she traced the outline of his shadow against the white marble wall one day as he sat by her side. Thus, Pliny tells us, she sought ever to hold his image before her sight. Poets and painters alike have immortalized the pretty story. Benjamin West, Mulready, Le Brun and many others have employed the subject in their pictures, so there is no lack of evidence.

WHO WAS SILHOUETTE?

For a long time silhouettes were, as has already been noted, referred to as shades. Often, too, they were called shadowgraphs.

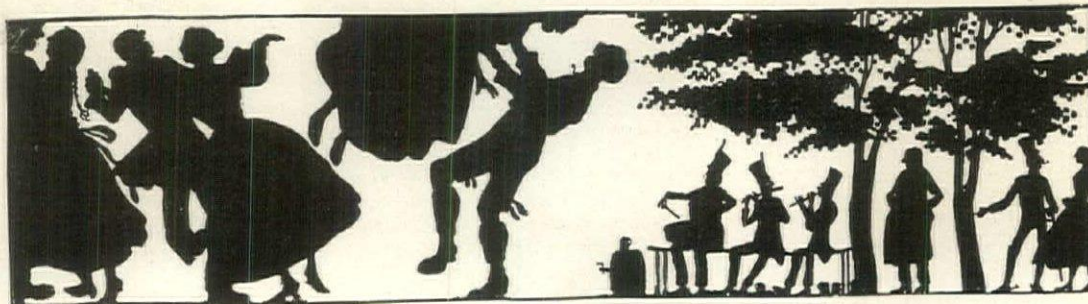
Just how the name silhouette came to be attached to shadow pictures is interesting to note. Etienne de Silhouette (sometimes the name is spelled Sihouette, without the l) was a French Minister of State who was born in 1706 and died in



For some time German and Italian artists have been using silhouette drawings for illustrations. Little Red Riding Hood, however, is not intended for a Nubian



A German silhouette illustration of Jordine and Joringel, by D. Polster, showing the delicacy of effect attained by fine lines and scroll-like curves on a white ground



A country carnival, after the German fashion, vividly portrayed in solid shadowgraph by Ferdinand Staeger

1767. He was secretary to the Duke of Orleans and was one of the Commissioners appointed to settle the Franco-British frontiers in Acadia in 1749. That was before his appointment as Contrôleur General, which was made in 1757 in the face of great opposition, as his economical traits were not relished by the extravagant nobility. To Madame de Pompadour I believe, the credit should be given for obtaining the appointment. Some day, perhaps, the world will come to understand how the Pompadour saved France as often as popularly she

thought to have ruined it. In the first twenty-four hours of Silhouette's ministries to the extent of seventy-two million francs were effected, it is said. Before long those opposed to him denounced his economies bitterly. He was called the Minister of France, Prince of Penury, and so on.

However, he persisted. As a result Silhouette, as a name, came to be applied from a time to all cheap things. Etienne de Silhouette died in 1767, but the memory of his economies outlasted his policies and found his name a byword abroad as well as at home. When the fashion for cutting portrait shades was at its height in England about 1825, the art was given the name of the French Minister who had died over fifty years before! And the name has clung

THE EARLY SILHOUETTISTS

In those days the portrait painters (though, is, the less well known ones, not the masters) found the profile shade portraits skilfully cut were hurting their own business by reason of the very cheap prices which even the best of these new-art producers charged. I venture to say that professional jealousy lay at the bottom of Etienne de Silhouette's name something he had nothing to do with!

The art of the silhouette was by no means a new thing to England in 1825. As far back as the time of William and Mary II Elizabeth Pyberg did silhouette portraits of the King and Queen. With Korinthea shares the honors of feminine fostering the art, and so do the later followers, Mary Opie (wife of the celebrated painter), M.

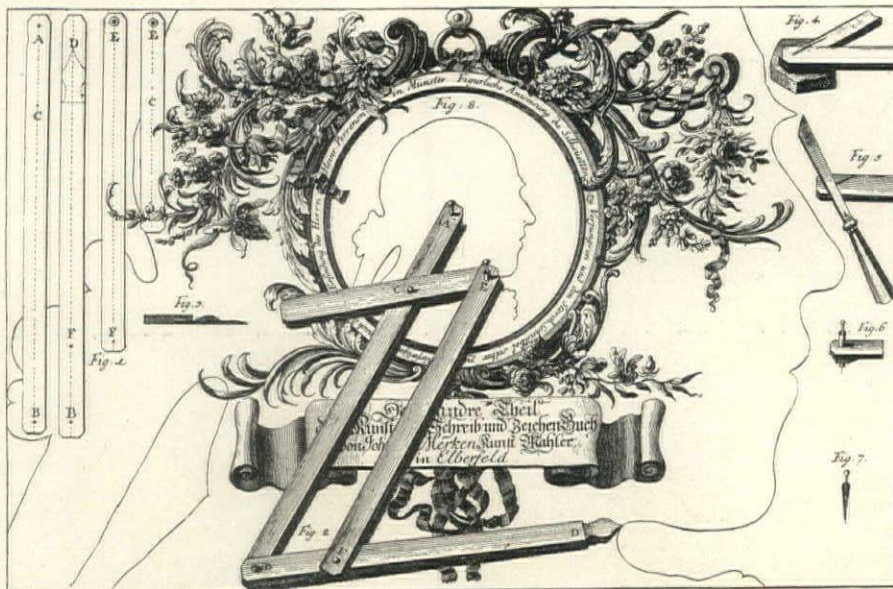
Leigh Hunt, Maryna Brandes (Berlin, 1765), Mary Beetham (London, 1785), the Empress Maria Theresa, Princess Elizabeth of England (daughter of George the Third), Eleanor Park Curtis (step-daughter of George Washington), M.

Eightfoot (Liverpool 1785) and the famous American artist, Mrs. Patience Lovell Wright, who was born in 1725 and lived in Bordentown, New Jersey, afterwards in London. Of her work Horace Walpole spoke in highest praise.

HOW THEY WERE MADE

Probably the heyday of the art of the silhouette in England was marked by the work of John Miers (1792-1827), of Charles Rosenberg and of Mrs. Beetham. Some of the silhouettes were cut out of black paper and pasted on white card. Others were outlined on card, ivory, plaster, bone, ink, glass, metal, etc., and filled in with black or occasionally gold, silver and flat color. Some of the silhouettes were small and others most microscopic. Again, a fashion obtained with early American silhouette makers of cutting the shade portrait out of the center of a white card and then backing the card with black cloth or paper which showed through the opening and thus formed the silhouette. Silhouettes of this sort were practically unknown in England, however. Another mode of making silhouettes was to paint them with a mixture concocted of fine soot and beer on the inside of convex glass surfaces backed with ivory colored plaster. These, of course, were very durable.

In Germany and in other countries mechanical devices were invented to facilitate the making of silhouettes. When such machines were employed the sitters would be placed so that their shadows would fall, life size, upon convenient screens. The outlines were then drawn. Afterwards, by means of a reducing pantograph, the large



By means of a reducing pantograph the large shadow outline was brought down to miniature



An old woodcut showing the first step in making the silhouette. Some of the artists turned them out at the rate of two a minute

the words "Bache's Patent." Bache did silhouettes of many Salem, Massachusetts, worthies. Indeed, Salem seems to have had a hankering for silhouettes, and silhouette exhibitions were held there in various years from 1791 to 1801. Doyle, who did a silhouette of Samuel Foster of Boston Tea Party fame, was Boston's only local silhouettist of note.

LATER SILHOUETTISTS

Of all silhouette artists, however, Auguste Eduart, a Frenchman born in 1788 who sought refuge in London in 1815 after the Napoleonic disasters, was the most popular. Eduart earned a living teaching

French in London until accident disclosed to him his ability to make silhouettes. After the death of his wife in 1825 he set to work making these shadow pictures, and his skill and success were extraordinary. For a full-length he charged five shillings, for the portrait of a child under eight, three shillings sixpence, and for a bust silhouette two-and-six. In 1839 he came to America and did silhouettes of all the notables of the day. Four years before he had published his "A Treatise on Silhouette Likenesses," a rare volume and one eagerly sought today by collectors.

William Henry Brown, who was born in Charleston, South Carolina, in 1808 and died in 1883, was the last of the old school of American silhouettists. He gave up the art in 1859. Brown was a quicker cutter than Eduart. From one to five minutes was the time he gave to a silhouette. His "Portrait Gallery of Distinguished American Citizens," illustrated in silhouette, was

(Continued on page 50)



The silhouette has found place in Japanese art, being used effectively in two values or shades of intensity

shadow picture was brought down to miniature and finally cut out or filled in with black pigment, as the artist elected.

Probably cutting out was less common a mode of procedure than filling in with paint, judging from the various antique examples that have been handed down to us. One of the best known of these cutters was William James, "Master Hubbard," an English boy who at the age of thirteen began the art, exhibiting extraordinary skill. At seventeen he came to America and settled in Boston, finally abandoning silhouette cutting to take up portrait painting, influenced by Gilbert Stuart. Master Hubbard's fee for cutting a portrait silhouette was fifty cents. The time he took to make one was seldom over half a minute! Charles Peale Polk, nephew of Charles Wilson Peale, in Philadelphia; Doolittle, Dewey, Master Hanks, Griffing, William Bache and William King in New England; J. F. Vallée and S. Folwell in Washington, were other famous silhouettists in America. On the Bache silhouettes one generally finds embossed

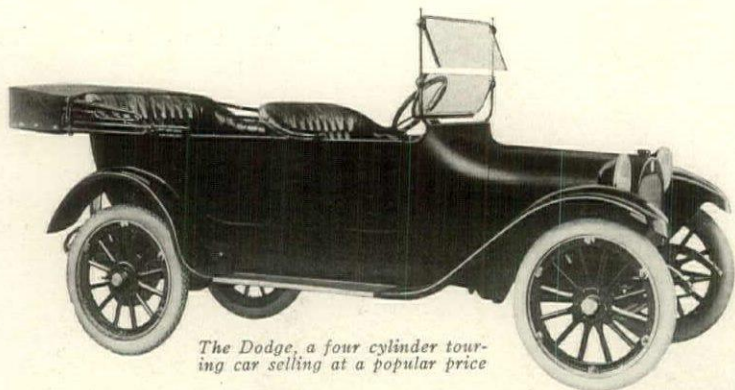


The smallest on record—exact size. A bull fight cut by a Mexican Indian. Silhouetting is a favorite pastime of those Indians



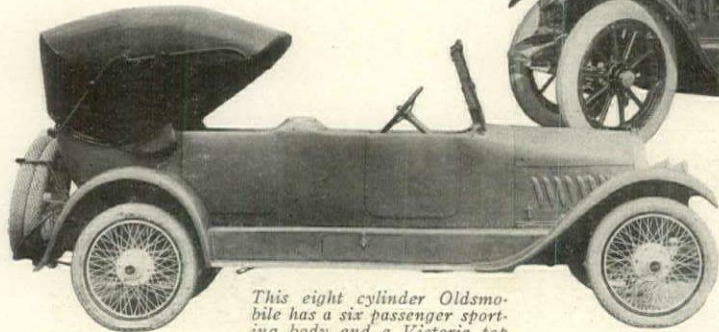
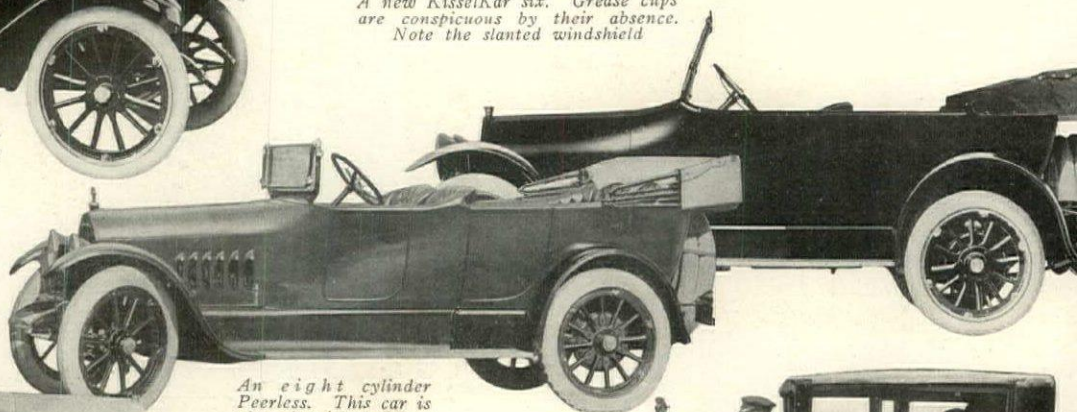
Reproduced from an original by Auguste Eduart, made in New Orleans in 1844. Note the background introduced

MOBILIZING TH



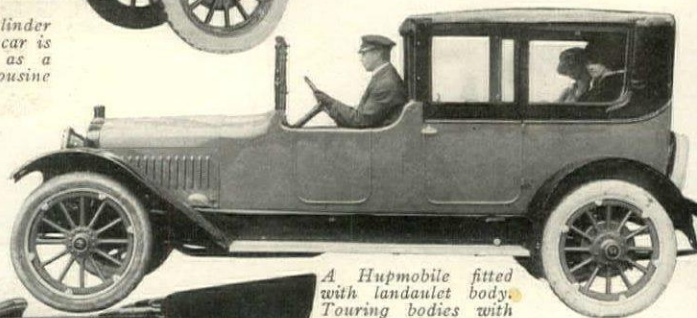
The Dodge, a four cylinder touring car selling at a popular price

A new KisselKar six. Grease cups are conspicuous by their absence. Note the slanted windshield

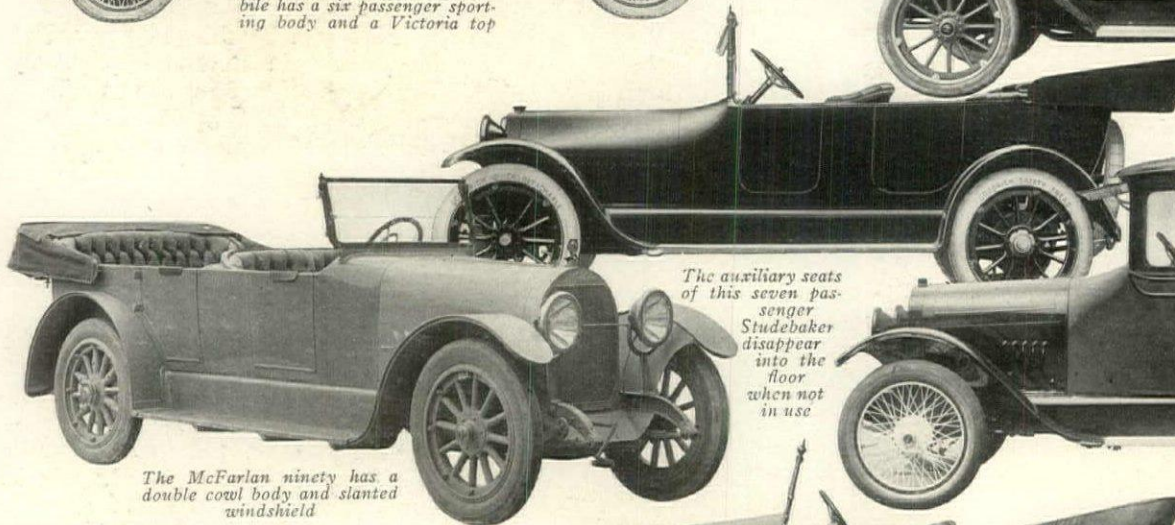


This eight cylinder Oldsmobile has a six passenger sporting body and a Victoria top

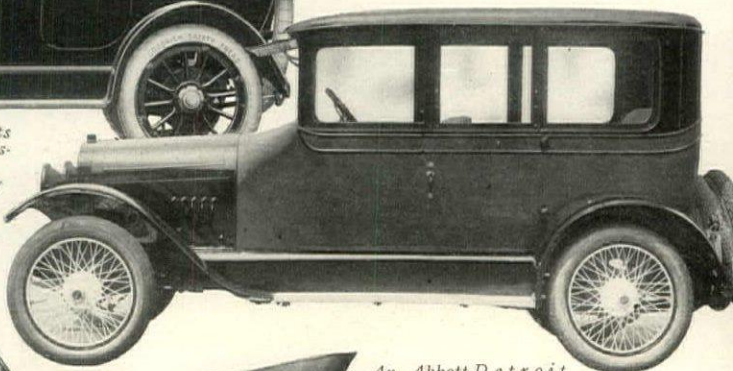
An eight cylinder Peerless. This car is also furnished as a roadster or limousine



A Hupmobile fitted with landaulet body. Touring bodies with winter tops are featured

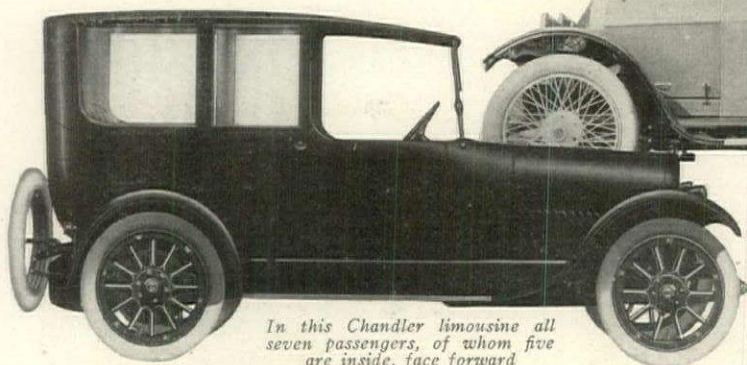


The auxiliary seats of this seven passenger Studebaker disappear into the floor when not in use



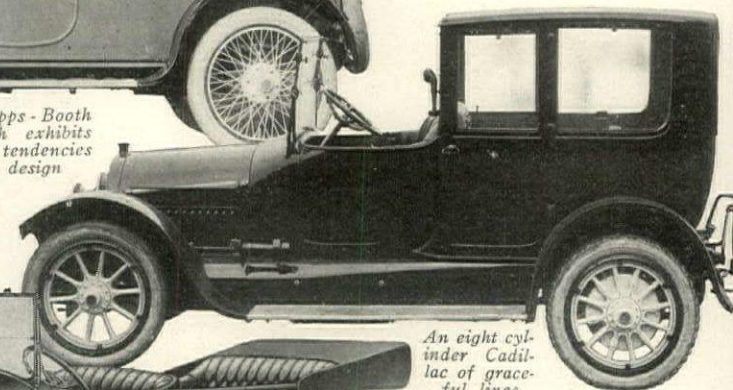
The McFarlan ninety has a double cowl body and slanted windshield

An Abbott-Detroit with luxurious sedan body

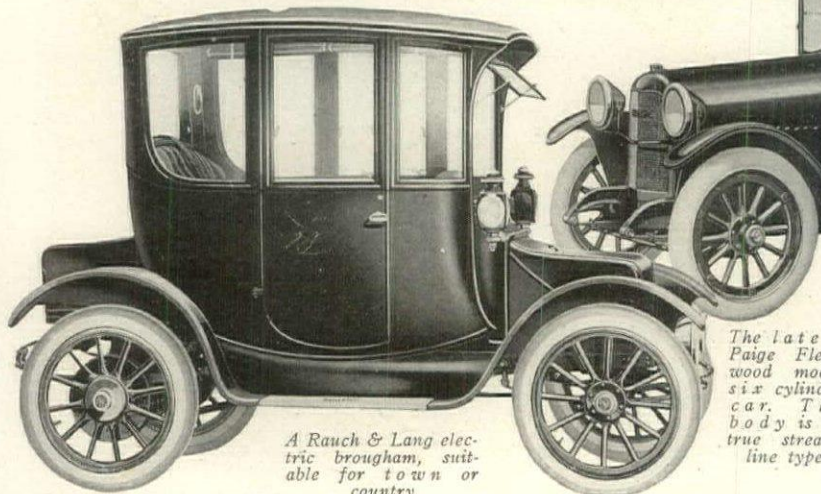


In this Chandler limousine all seven passengers, of whom five are inside, face forward

The Scripps-Booth eight which exhibits up-to-date tendencies in body design

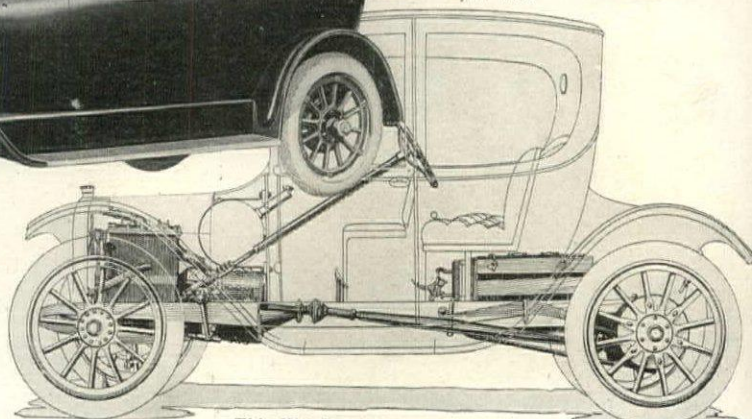


An eight cylinder Cadillac of graceful lines



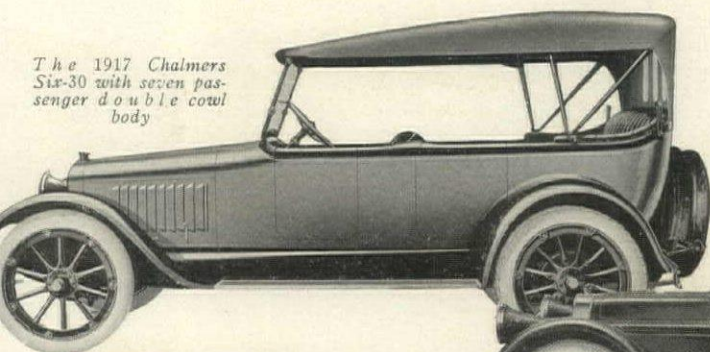
A Raich & Lang electric brougham, suitable for town or country

The latest Paige Fleetwood model six cylinder car. The body is of true streamline type

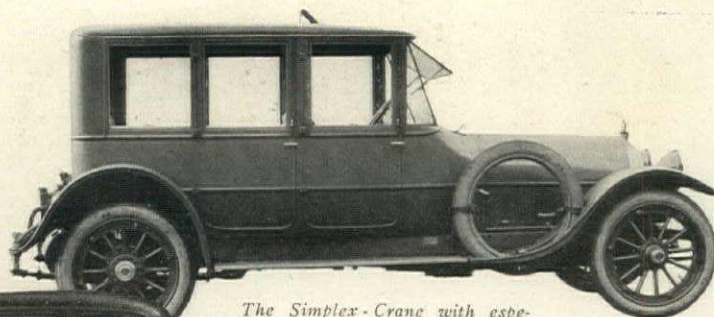


This Woods coupe may be used as a gasoline car, as an electric, or as both

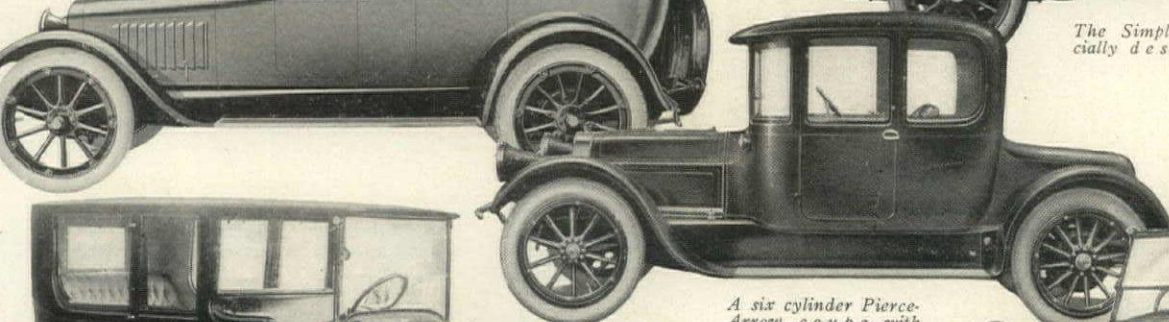
LATEST MOTORS



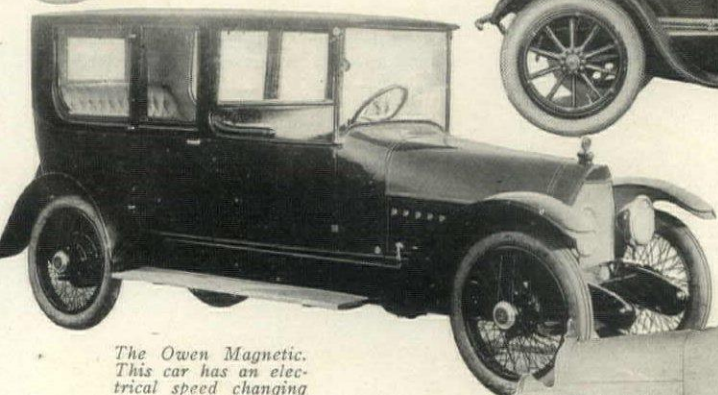
The 1917 Chalmers Six-30 with seven-passenger double cowl body



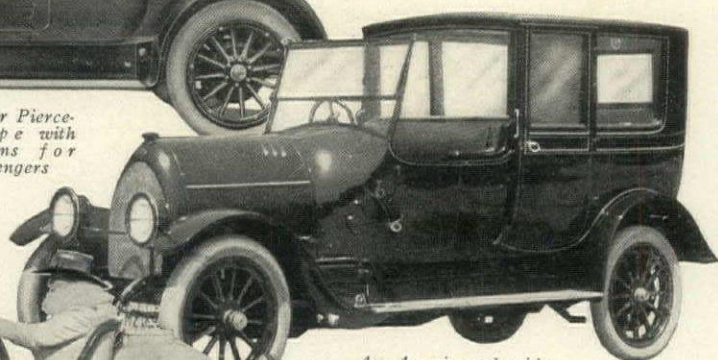
The Simplex-Crane with especially designed six-passenger body



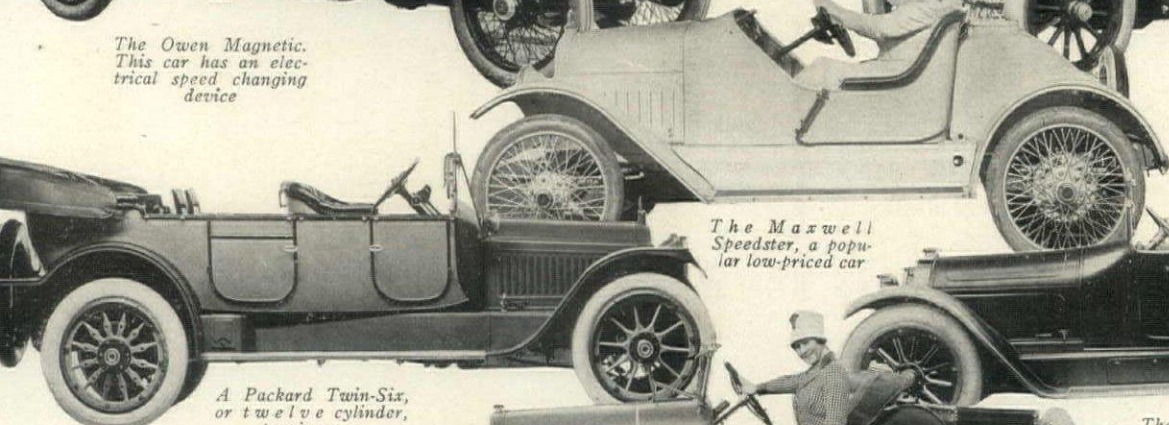
A six cylinder Pierce-Arrow coupe with accommodations for three passengers



The Owen Magnetic. This car has an electrical speed changing device



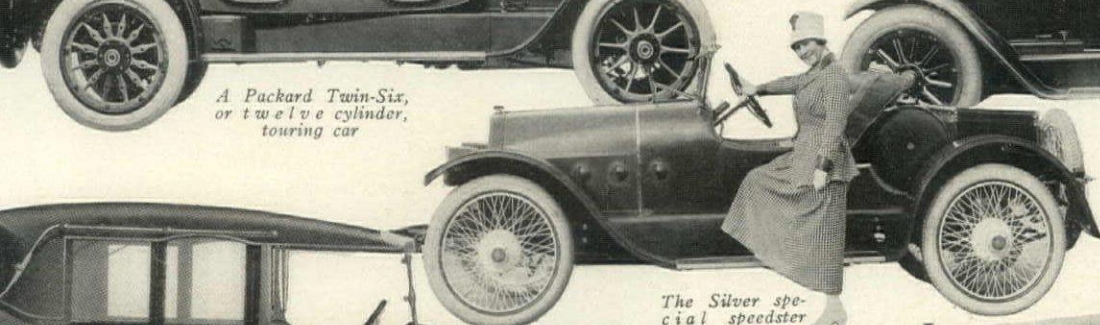
An American-built Fiat with Brewster limousine body



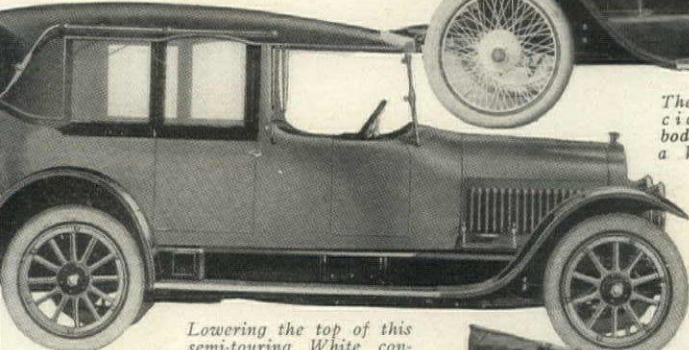
The Maxwell Speedster, a popular low-priced car



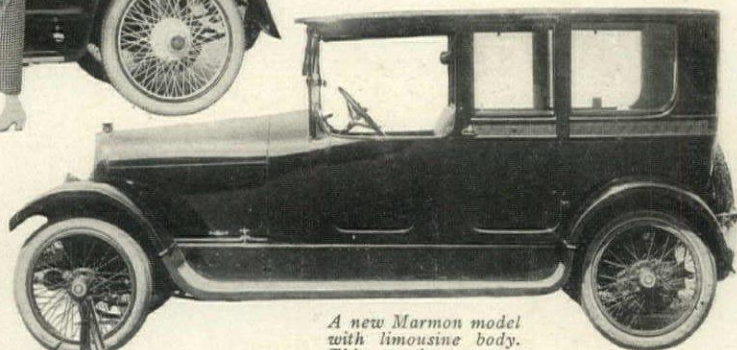
A Packard Twin-Six, or twelve cylinder, touring car



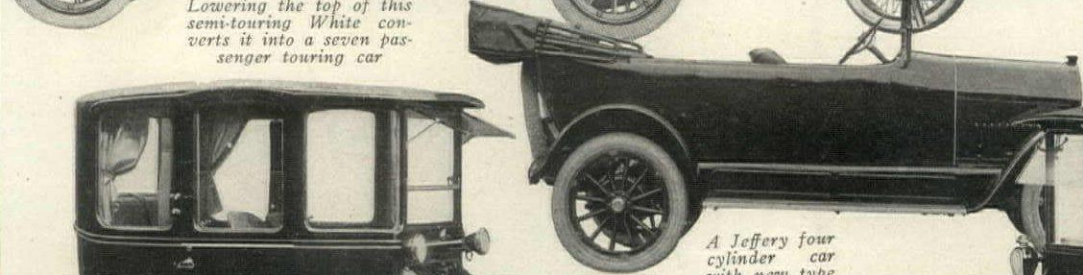
The Silver special speedster body mounted on a Willys-Knight chassis



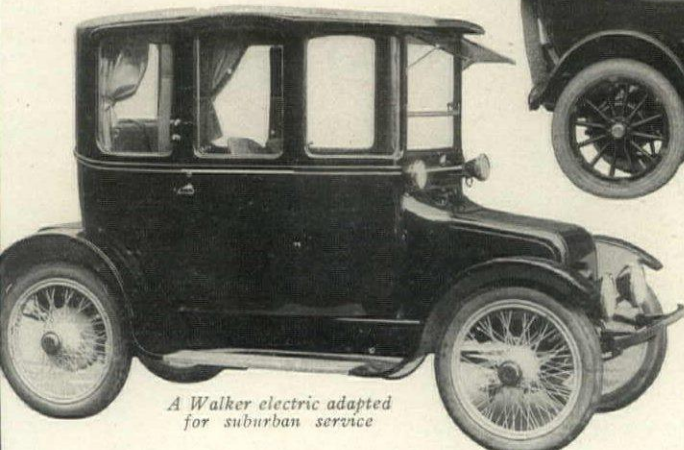
Lowering the top of this semi-touring White converts it into a seven-passenger touring car



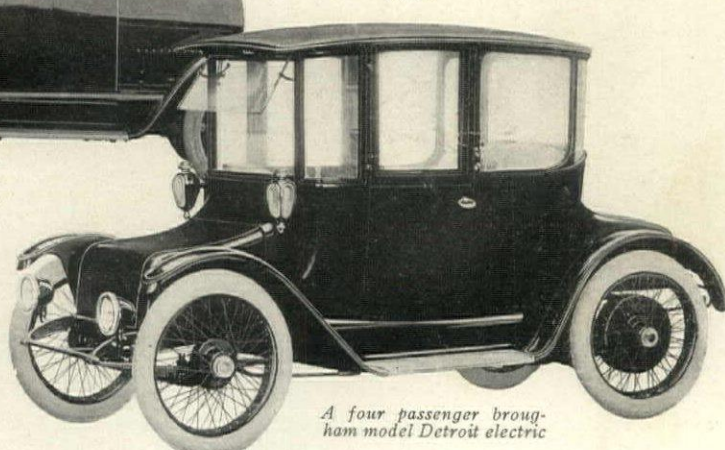
A new Marmon model with limousine body. This car incorporates many features of interest



A Jeffery four cylinder car with new type roll-edge body



A Walker electric adapted for suburban service



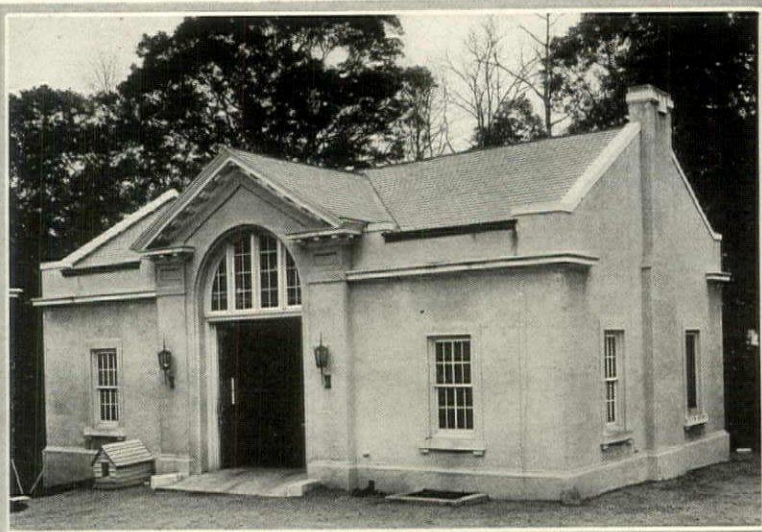
A four passenger brougham model Detroit electric



Photo by Jackson & Whitman

J. R. Pope, architect

On this Baltimore estate the back of the garage was used for the wall of a formal garden, an excellent idea where space permits



B. V. White, architect

Considering the size of this two-car concrete garage, the single door is too small for convenience. Provision for light is good

CONSTRUCTING THE PRIVATE GARAGE

Where to Put It—How to Make It—How to Tie It Up with Your House and Grounds

MORRIS A. HALL

GENERALLY speaking, the person who builds a garage expects to get more motoring with greater comfort and usually for less money. By having the car closer at hand, more accessible, it is more usable and as a result more used. If nothing else did, this would justify the relatively small expense of building and maintaining one's own garage on the property.

In building such a place the following items should have serious consideration: Floor plans and number of floors, the relation of the layout to the ground levels; materials, lighting (natural and artificial), ventilation, heating, facilities for doing work, equipment, supply of fuels, etc., and finally the relation of the garage to the other buildings that are near it.

The latter may be considered briefly. If the other buildings are all of a certain shape with a fixed relation of height to width and length, a certain kind of material for the foundations, another certain kind for the side walls, a third for the roof, etc., in

short, if all the other buildings are in harmony and each constitutes one part of the general scheme, the garage should be designed and built so as to conform with that scheme. This might influence the floor plan, relation to ground levels, and surely would influence the materials.

FIGURING THE SIZE

Admitting that is not the usual case, the size and floor plan should be taken up first. In most instances the rectangular shape is best and most economical, with a length about 1.6 times the width, the latter being fixed by the size of the car, and the needed working space on the sides. Thus, if the owner finds his car is 5' 8" wide and feels sure that 3' 2" on each side is plenty of working space, this gives an inside width of 12'. Then the best length would be about 1.6 times this or 19' 3". Both these are inside dimensions so the outside sizes would be greater, varying with the materials used.

Unless a big turning space is available,

the garage should have a turntable, located preferably near the door and directly in the middle of the width. Then the workbenches, cupboards for tools and supplies, etc., should be at the farther end. The owner's door should be a small one, separate from the main garage doors. Close to this, preferably on either side of it, should be the washstand and the clothes locker. Equally close on the other side should be the source of gasoline supply, water and oil. This arrangement makes it possible for the owner to enter, put on his motor togs, fill all oil and fuel tanks and the radiator without too much walking around.

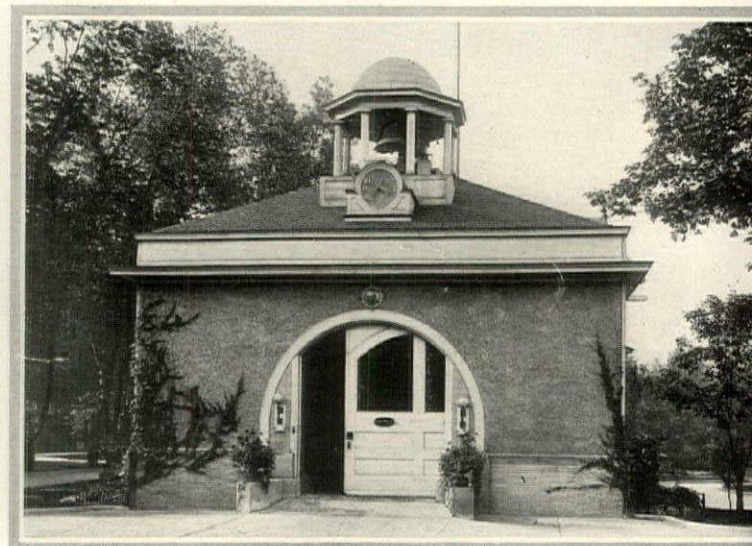
Of course, it goes without saying that the gasoline and oil tanks should be of the safety type, buried in the ground outside of the garage building and as far away as possible. All that is inside the garage is the connecting pipe and outlet faucet, perhaps the quantity gauge.

If the building is long enough and wide enough to warrant it, a low second story



© E. F. Hodgson Co.

The ready-to-put-up garage is practical and inexpensive. Surrounded with shrubbery it can be made a factor in the garden

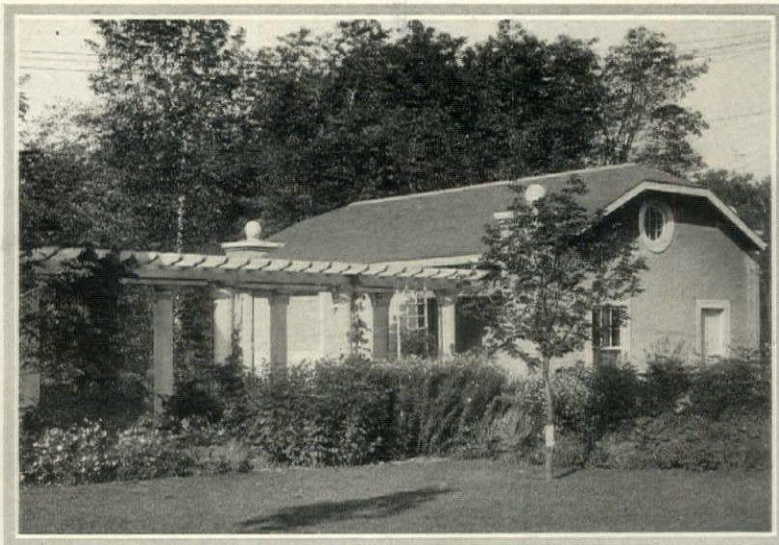


Though of unusual architecture, the doors of this garage are sufficient. The lighting, however, is inadequate for work inside



Frank Smart, architect

An excellent type combining garage and chauffeur's quarters. Wide doors and drives make approach and exit easy and convenient



An admirable effect can be had by connecting the house and garage by a pergola, thus making the garage seem a part of the house

half story is desirable, for it makes a place to store a winter body in summer, a touring body in winter, or either when overhauling the chassis. This need not be finished off, except when it is desired to make provision for the chauffeur, in which case a full second story, entirely finished off, and with bathroom, is desirable.

The ground levels have an influence only when building both house and garage simultaneously. In some cases it is possible to make good use of a hilly piece of ground by building the garage as part of the basement of the house. Very often a lot which is high in the front and low at the rear lends itself very well to this economical combination.

CONSTRUCTION MATERIALS

As to materials, it should be borne in mind that a fireproof building is doubly desirable, from the standpoint of protecting the investment in both car and building to say nothing of its contents, but also from the point of view of lowered insurance. With this thought fixed, cement stucco on hollow tile, or cement plaster on metal lath, all stone, all brick, or all concrete in the form of blocks are the most desirable. In making the choice, the car owner will be governed by the material used for the house and other buildings, the amount which he

feels he can spend, the time available for building, and other similar items. Other things being equal, the writer favors the first two.

In the matter of light, practically all garage builders go wrong. This is the one thing which is needed most in a garage, particularly if the owner plans to do any work on the car himself, or have any done. And yet nine garages out of ten have insufficient lighting, both natural and artificial. In an investigation made by the writer at one time in twenty-five garages visited one had good light and four were classified as fair. The balance were either bad or very bad, and these included a number of expensive two-car garages. Only one had five windows, five had four windows, five had three, nine had two, four had only one and one had no windows at all!

A garage 12' 6" by 20' outside, as mentioned previously, should have at least three windows on each side, two in the back and two in the front door, a total of ten. And where built low it should have a skylight in addition, or if the roof is sloping two skylights. And the artificial lighting provision should be just as good, for there are many dull holidays and Sundays when the mechanically inclined man will want to work off his surplus energy repairing, adjusting or cleaning the car.

Ventilation is important to keep the gar-

age smelling sweet and clean, and also to rid it of the dangerous fumes from fuel and oils. The latter it must be remembered are heavy, and the ventilation for these should be low, preferably at the floor level. Other ventilation should be high, preferably at or in the roof construction.

HEATING THE GARAGE

Heating is a problem all by itself, complicated by the highly inflammable nature of the gasoline, oils, oily waste, etc. This calls for heating in which there is no open flame, barring all stoves or open heaters. When near the house, the steam or hot water system can be extended to it readily, but at a distance a separate plant is needed. On many large suburban places the greenhouse and garage can be combined very effectively, both as to building cost and utility on the one hand, and appearance on the other. In a case of this sort the copious supply of heat provided for the greenhouse takes care of all need for heat in the garage. In this connection a word of caution: do not put the greenhouse on top of the garage as exhaust gases from the motor will kill the majority of house plants.

It is well to build in an overhead beam of wood or metal to form the basis for a hoist, needed for taking off a body, taking out an engine or any similar heavy work.

(Continued on page 54)



Photo by Brown Bros.

Where the slope of land or type of architecture permits, the garage can be made an integral part of the house itself



Courtesy of C. D. Pruden Co.

Painted to match the house or surrounding structural elements, the ready-built garage fits into the city property successfully

NEXT TO THE PONY—THE PLAYHOUSE

When you were a youngster did you want a pony? And if you couldn't have a pony didn't you like a playhouse best? Well, here are the playhouses. They can be bought through the HOUSE & GARDEN Shopping Service, 440 Fourth Avenue, New York. The names of the manufacturers will be furnished by the Information Service.



© E. F. Hodgson Co.

An attractive little house up whose trellises vines can be trained. It is made of cedar, and has a 6' x 7' room and 3' x 6' porch with two seats



© E. F. Hodgson Co.

Somewhat larger than its adjoining neighbor, this one measures 8' x 8' inside, with a 4' x 8' porch. The general plan is quite similar



© E. F. Hodgson Co.

This screened playhouse would also be good for the children's sand pile



Photo by Beals

A variation of the Indian wigwam, of poles covered with birchbark, always appeals to the youngsters



W. D. Brincklee, architect
The addition of a stove and flue makes playhouse available winter

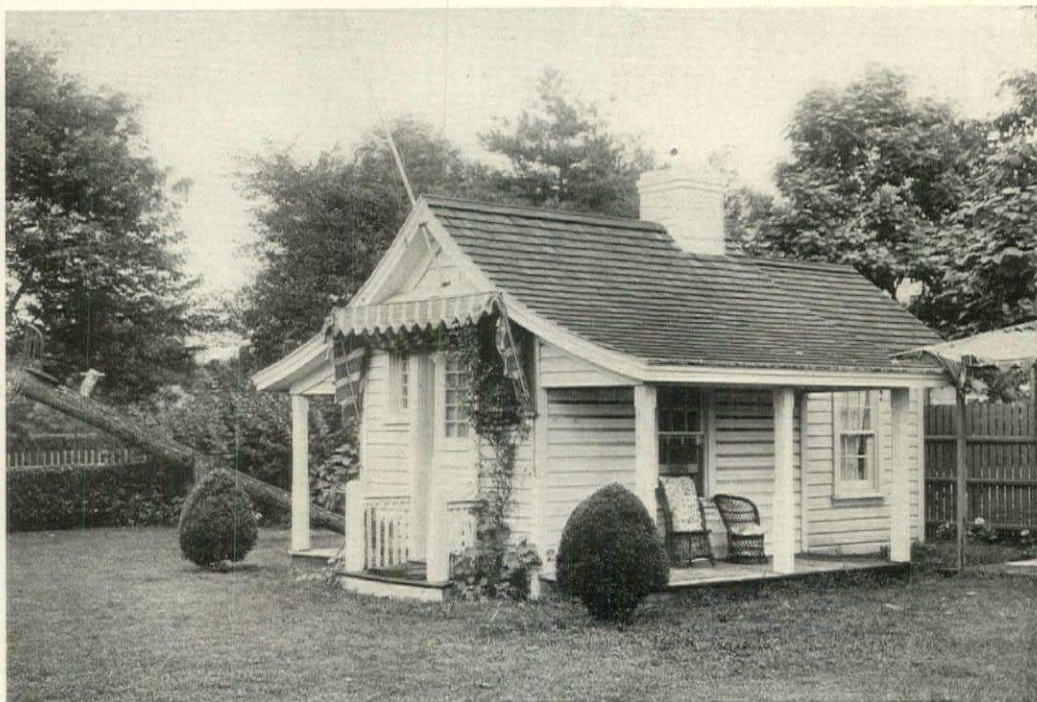


Photo by Beals

A type of playhouse whose greater pretensions are justified by its increased comfort

THE GASOLENE FARM

and the Really Big Work on It Which
the Automobile is Doing Today

F. F. ROCKWELL

Photographs by Brown Bros.

TWO of the most important phases of rural development during the last decade or so have been the increase in size of the "small" farm, and the increase, in many sections of the country, of the number of small "farms" which are used as dwelling places and run as side issues to some other profession or occupation of the owner. Although these two conditions seem somewhat paradoxical at first glance, they are not so in reality; the first illustrates the fact which hundreds of government investigations have proved to be true, namely, that the large farm as a business proposition is superior to the small farm; and the second the equally important fact that the professional, business or skilled workman who can use his spare hours during the summer season to produce a large part of his food supply possesses the equivalent of a very substantial increase in salary.

Just what all this has to do with the coming of the automobile to the farm may not at first be apparent, but there is a very intimate connection in both cases. It is a connection much deeper and also much less spectacular than commonly supposed. Everyone has seen pictures of the practical, low-priced car backed up to the woodpile, sawing wood, or hitched by some clever arrangement to a mowing-machine, with experiments on what the automobile is being made to do on the farm. But the really big work which the motor car is doing for the farm does not so lend itself to striking pictures. It has passed the unique stage.

THE REAL WORK OF THE FARM CAR

To anyone who has been in close touch with the practical side of country life, however, it must have forcibly presented it-



Not only has the automobile lightened the actual labor of farm life; it has made possible the marketing of produce in from one-fifth to one-half of the time formerly required

self. Marketing of products in one-fifth to one-half the time formerly required; a much greater range of markets available; rapid transit for the manager or supervisor of work on the big farm or the "chain" farm; mobility of labor and materials; the saving of time formerly wasted in getting to and from work for the spare time small farmer—these are the things of tremendous importance which the automobile is doing for the farm, so far as the economic side of the question is concerned. One hears and sees little about them; but in the end they will prove of hardly less influence than the development of the steam locomotive. They are quietly but rapidly changing the whole status of a large part of American agricultural life.

Important as the economic aspects are, or may become, however, it is doubtful if they outweigh the tremendous social advantages which the popular priced car is bring-

ing, and has in many sections already largely brought, to farm dwellers, both those who dwell for a living and those who want but a home in the fresh air and an occasional fresh salad. You will probably have a chance, some time this month or next, to attend a country fair. Just glance observingly over the arrays of autos you will see there, of all kinds, colors, calibers and previous conditions of servitude. But each one means that for its owner, at least, the greatest bugbear, drawback and obstacle to real country life—*isolation*—has been to a very great extent removed. The auto is completing the function of the telephone in bringing civilization out to the soil, and making possible that intercommunication without which efficient rural organization would be an impossible task.

To the farmer with a car, distances up to five or six miles are within as easy range as one to two miles formerly were by horse travel. The rural church, the school, the grange, the institute, the field demonstration, fairs and exhibits, visits to well-managed farms, buying and selling organizations—all these agencies for better farming and happier living are not only made more accessible, but they themselves can be greatly improved because serving so much larger units of territory and consequently being able to command the services of much higher priced and more skilled men.

AN ESSENTIAL NECESSITY

Summed up briefly, the position of the motor car on the farm has changed during the last few years from that of a luxury to that of an essential necessity. Just as the progressive farmer has had to utilize telephone service or see his share of local sales captured by his neighbor who did, or find that he was losing the best parts of his possible profits by not being able to keep in touch with the market, so competition is making a necessity of automobile transportation, particularly for perishable products, frequent deliveries and long hauls. Several large concerns are now laying their plans on the assumption that eventually practically every farmer will have a car.



The modern dairy farmer straps his milk cans on the back of his car and makes the six-mile trip to the railroad or milk depot comfortably, returning much earlier than in the horse days



Every farm that is worthy of the name entails a considerable amount of hauling and heavy cartage. Here is where the motor truck comes in because of its speed, power and capacity

But how about the individual problems of the man who wants a car for his place, whether it be an estate, a real farm, or a small place? What are the specific things he can expect of it? What type of car is best? What equipment necessary? What is the wear and tear expense?

The answers to all these questions must be, in the nature of the case, more or less conditional. But the man without previous experience who is thinking of buying a utility car may get from them some points that will save him trouble, time and money.

To take the first question first, what are the things one can do with a car on the farm? Undoubtedly where the car saves most time is in getting the product to market or shipping point, and for this purpose some form of truck is generally used, although there are hundreds of small places whose chief products are eggs, berries or some vegetable specialty, where the back part of the tonneau serves as the truck and does for hauling back the small bulk of supplies needed, such as two or three bags of grain at a time. With a heavy canvas so formed that it can be quickly thrown over the back seat and floor and "stay put," this is a perfectly feasible plan if a little care is used in loading and unloading and not too much weight put on.

LIGHT AND HEAVY TRUCKS

When it comes to the regulation truck, there are all sorts, many of them especially designed for different kinds of work. There is not space here to go into great detail, but experience has proved in many cases that it is more economical both in original outlay and in upkeep and running expenses not to get too heavy a truck. In other words, select your machine to handle the *average* load it will have to carry, rather than choose one capable of handling regularly your maximum load, as you probably would in selecting horse equipment. With the amount of time saved by motor transportation it is usually possible to split up any extra heavy carriage into one or two additional trips.

Another question to be considered is solid

versus pneumatic tires. While the former have been and probably will continue to be best for very heavy loads and heavy wear, for ordinary conditions they are likely to be less satisfactory in the end. As I once heard a practical repair man say in answer to the contention that solid tires were cheaper, "the expense of solid tires is in the engine," and over rough roads that is undoubtedly true. Speed is also an important consideration for farm work, for the time saved in making the return trip with a fairly fast car will often offset additional tire or gas expense in getting the load to market in good time.

There is one type of farm car which would seem not to have been fully developed as yet, although there undoubtedly would be a big field for it, as is evidenced by the number of attempts one sees to improvise something of the kind on the part of car owners. That is the combination runabout and light truck, something to take the place of the popular horse-drawn "democrat" wagon. For less than fifteen dollars one can now get a light truck body to fit the chassis of one of the most popular low-priced cars, requiring but the removal of four bolts to change it from a runabout to a light truck. There has also recently been put on the market a successful chain drive addition by which one of these light cars may be converted into a perfectly practical one-ton truck. In using the original chassis of a light car for truck purposes, it is a good plan to reinforce the rear axle with one of the several braces made for the purpose, and also to invest in a pair of solid rubber "bumpers" which prevent the

springs from being driven down below certain point in going over hummocks, ruts, holes, etc., such as one encounters.

TRAILERS AND OTHER DEVICES

Another way of utilizing the car for farm purposes, which has been rapidly increasing in favor during the last few years by the employment of "trailers." These are of various forms and sizes, but the principle is to get the weight of the load to be carried on to a third pair of wheels so that the rear car springs will not be overloaded, and at the same time to place the load so near the car that it will be practically part of it. The trailer has of course the additional advantage of leaving all the space in the car itself available for passenger use, and of eliminating the danger of disfiguring it. Trailers in use have proved practicable for all sorts of hauling, where an occasional load only is to be taken to or from town, or supplies taken along as on a camping or fishing trip, they are the simplest and cheapest solution of most a haulage problem.

Tire expense for service cars, trucks, trailers, etc., is of course an important item. A considerable percentage of this expense may be saved by utilizing worn passenger car shoes for "re-treaded" or double-treaded tires. The expense of having two old tires converted into one is much less than the cost of a new tire, and while the double-treaded tire is not as neat looking, it frequently gives just as long service as a new shoe, and of course cuts the expense.

Where a simple truck body with open top is used, a tarpaulin of suitable material should be provided and always carried along to protect the load from dust as well as from rain. It should be provided with a number of short pieces of rope, with rings or eye-bolts along the side, so that it may be quickly put in place and held tight on any size or shape load that is likely to be put on.

In the main, these are the varied uses to which the farm car can be put. The man with ingenuity may find even more picturesque jobs for his motor, but it is more advisable to use the car as a car than to use it to sawing logs and such. For the value of the car on the farm lies in the fact that it is ready for use at any moment which is more than can be said of the average team.



In a thousand and one ways the car is practically useful. It would take a well-trained team to stand still enough for this operation



THE DOG FOR THE CAR

A Variation of The Old Theme of "Take The Family Along"

Photographs by Beals and Brown Bros.



Among the smaller breeds the ever popular Pekinese is a favorite "accessory." Two of him will fit comfortably in even a small semi-racing car



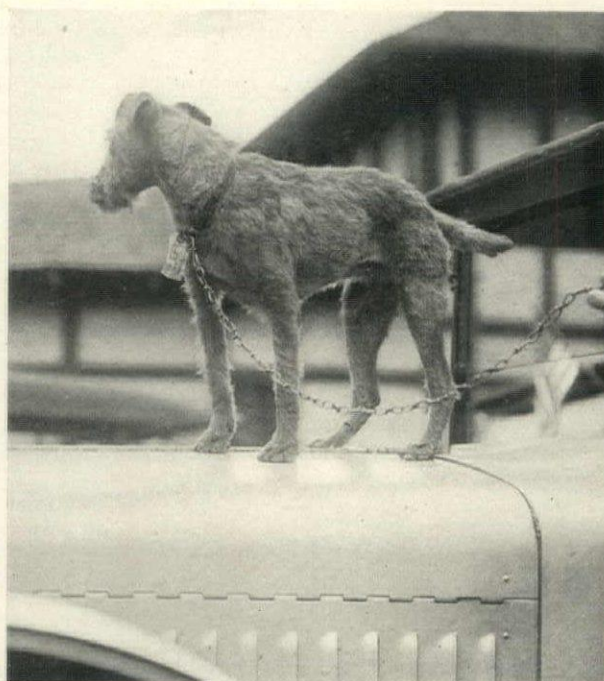
A chow finds himself as much at home in a runabout as in the reception room. Though he may need a seat all to himself, he is a good companion



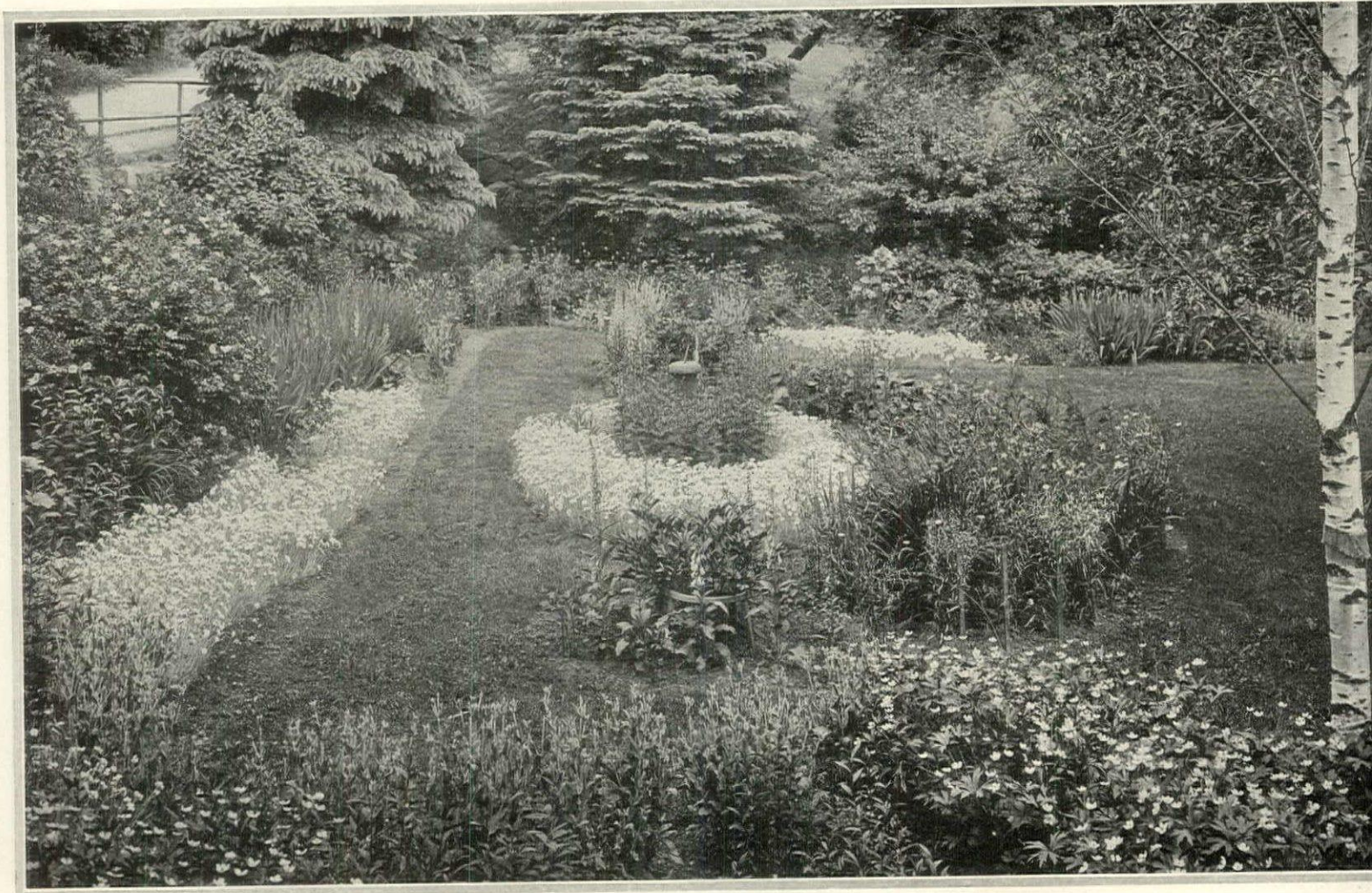
For a more topiary effect the poodle is in a class by himself. He would doubtless be seen frequently in cars were he less rare in the home

WITH the advent of these gasoline-driven days there has come a new stage on which the dog stars well-nigh as brilliantly as he has done for ages in the home: the stage of the motor car. The dog in the car is today a conspicuous and popular feature in town and country. Whether Peke or poodle, chow or Chihuahua, Pom or pointer, the fact of his breed matters little so long as he "fits."

The photographs on this page were taken at one of the big race meet openings early in the summer. They suggest a few of the many possibilities in a theme that is ever growing in favor, and which appeals as strongly to the dog as it undoubtedly does to his master or mistress.



The Irishman likes to be there or thereabouts whenever anything happens. But even he cannot safely ride on the hood at high speeds



The perfume garden is restful and sweet with the scent of grass pinks and other fragrant blossoms

THE GARDEN OF SWEET PERFUMES

We Plan Our Gardens for Color and Form Harmony — Why Not Consider Perfume as a Leading Factor?

KATE V. SAINT MAUR

IT is unfortunate that the Pilgrims arrived in America during a period of religious persecution which caused any gratification of taste to be looked upon as a beguilement of Satan. Even to this day

our gardens bear evidence of Puritanical repression of anything so pleasing to the senses as perfume, for though they are glorious in color now, they lack the enchantment of fragrance which makes the old established gardens of Europe so alluring. Yet plant odors are so delicately indiscernible and suggest such a wholesome fragrance that there is good reason for introducing perfume plants into the garden, and not a single objection, since it means only a few packets of seed and a little thought in the selection of sorts.

SCENTED SHRUBS AND VINES

In the distant corners you may use such shrubs as white and purple lilac, syringa, strawberry shrub, flowering currant and Adam's needle, which throws up a branching flower stalk 4' or 5' high bearing hundreds of creamy white, fragrant blossoms. These four large shrubs bloom in succession and provide perfume from early spring until late in August. The first three are perfectly hardy, but Adam's needle or, to give its true name, hardy yucca, must have some light protection during northern winters.

Such vines as honeysuckle, jessamine, clematis, mignonette vine and moonflower should be planted around porches and pergolas, to ensure bedrooms receiving a bene-

diction of fragrance on cloudy days and after the shades of evening close in, their perfume is always stronger than during the hours of bright sunlight.

The white day-lily grows about 2' or



The day-lily should be included because of its perfume, though its form is not prepossessing



Clematis paniculata, one of our best fall flowering vines, delights the senses of sight and scent



The old-fashioned honeysuckle has a place in the scheme which none other could quite fill



Do not forget thyme; it merits attention



The white evening primrose ranks among the most charming of all sweet scented plants

scented. Rose and mint geraniums and lemon verbenas are sweet foliage plants which must not be forgotten.

Among the loveliest of evening primroses, some of which are native perennials, are the white evening primrose (*E. speciosa*) with fine large blossoms and succeeding in dry soil; *E. biennis grandiflora*, an improvement on the common evening primrose (*E. biennis*); another white sort (*E. albicaulis*), of low growth, but bearing immense white flowers; and *E. Drummondii*, which has two varieties, pale yellow and pure white, very lovely annuals readily grown from seed and developing beautifully.

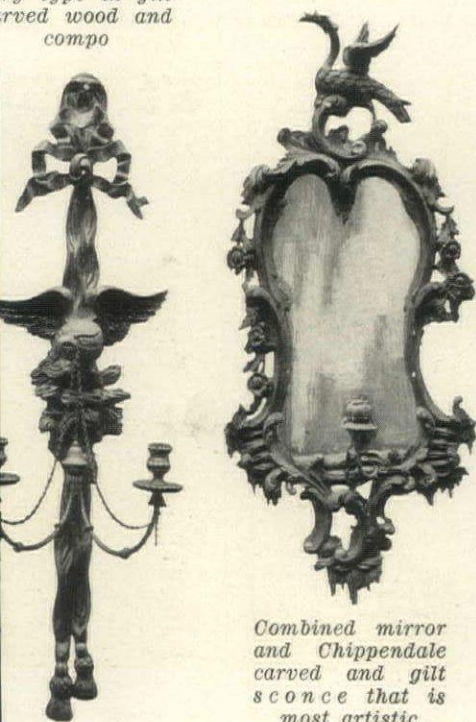
OTHER PLANTS FOR PERFUME

Verbena Mayflower, with large clusters of pure white or pale pink flowers, is especially fragrant at night; so, too, are white or pink and white petunias. Various pinks, including the clove scented grass pinks of

May; the beautiful pale yellow and white Marguerite carnations; double white Sweet Williams; ten-weeks stocks, canary, rose, May Queen (a pale lilac) and Princess Alice (pure white) are in bloom for weeks. Mignonette; snapdragons, Giant White, Chamois, Golden Queen and lilac; three dainty edging plants, Virginia stock, sweet woodruff and sweet alyssum; flowering tobacco (*Nicotiana affinis*), growing about 3' or 4' high, branching with clusters of white tubular flowers; night blooming stock (*Matthiola bicornis*), a low, weak stemmed plant with ragged pinkish or white flow-
(Continued on page 50)

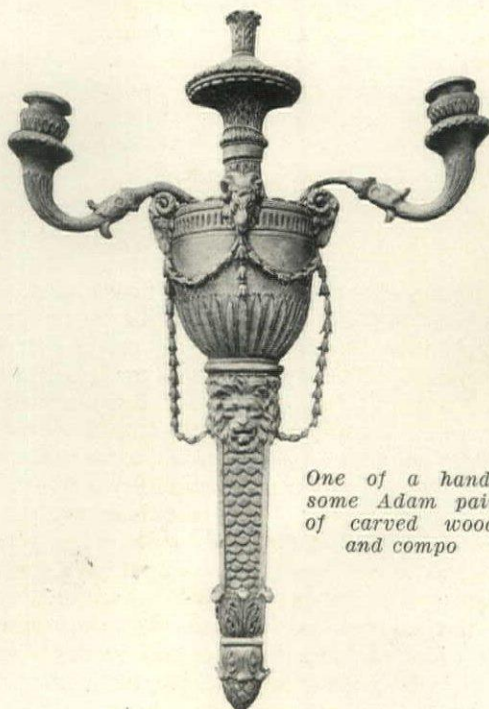
SCONCES WITH A LINEAGE

late 18th Century type in gilt carved wood and compo



Combined mirror and Chippendale carved and gilt sconce that is most artistic

From the forms of the old originals below can be reproduced modern sconces adapted to present-day lighting methods. For information write the HOUSE & GARDEN Shopping Service, 440 Fourth Avenue, New York.



One of a handsome Adam pair of carved wood and compo



The panels of this sconce are backed with blue glass. A mirror is in the center

Above and below the central mirror are circular ones of dark blue



THE DROUGHT RESISTING CACTUS

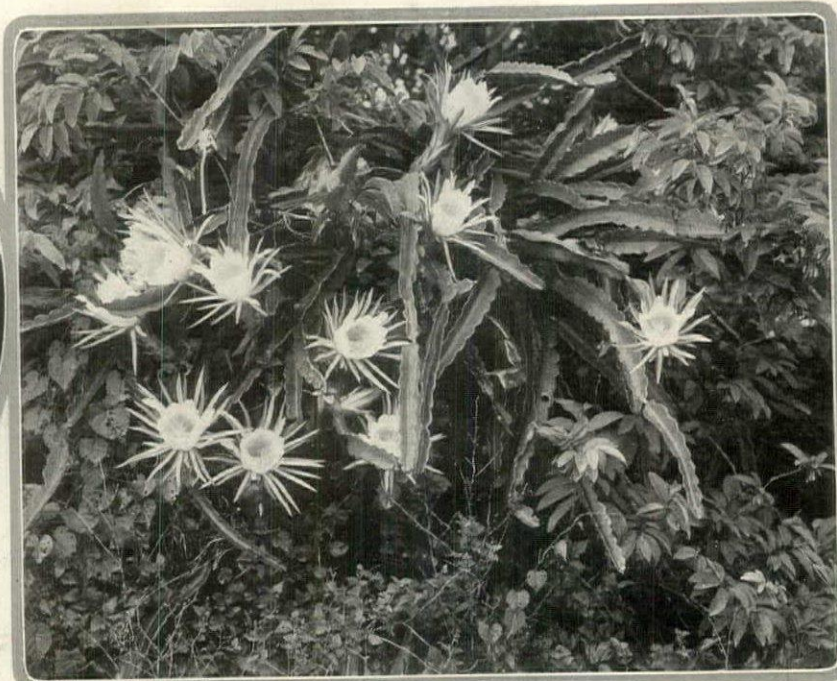
To that Spare Dry Spot in the Garden, Where Nothing Else Succeeds, the Plants of the Desert Will Add a Wealth of Unique Interest

ROBERT STELL



Photograph by Dr. E. Bade

The *Cereus* genus comprises about 100 species which show many variations. This one is *fulviceps*



Photograph by Julian A. Dimock

This is one of the so-called "night-blooming" *Cereus* group. Only a small section is shown here; the entire blossoming area is about 100 square feet



Photograph by Dr. E. Bade

The flowers of *Echinocereus Engelmannii* are sometimes $2\frac{1}{2}$ " long. Their color is a purplish red

AT least to the average gardener, the cactus is essentially a product of its natural environment. Less academically, it is a plant of the desert, by the desert, for the desert. Where other growing things would wither and die in the moistureless glare, the cactus waxes fat and high. When rain does fall it is sucked up and stored in the plant's body. Minimum surface combined with maximum thickness reduces the loss of moisture by transpiration through the cactus' pores. Foliage leaves it lacks. Heavy outer walls surround the natural reservoirs within, defenses against dry times. In a word, the cactus is one of Nature's own shining examples of the value of preparedness. It is forearmed.

Then why, since a garden is no desert, consider these desert products for the garden, do you ask? Well, for two particular reasons:

In the first place the cactus family is a novelty, in the sense of being composed of members that are different from all other cultivated flowers. They are grotesque in form and often beautiful in flower, certain to attract the eyes and comments of all who see them, and to add a unique touch to plantings

which are not too formal. Again—and this is a genuine recommendation—many cacti will grow where nothing else worth while will, in the full sun of midsummer and through the long droughts which often then prevail. Many an otherwise bare and neglected corner can thus be made to bloom and hold the interest with its freakish crop.

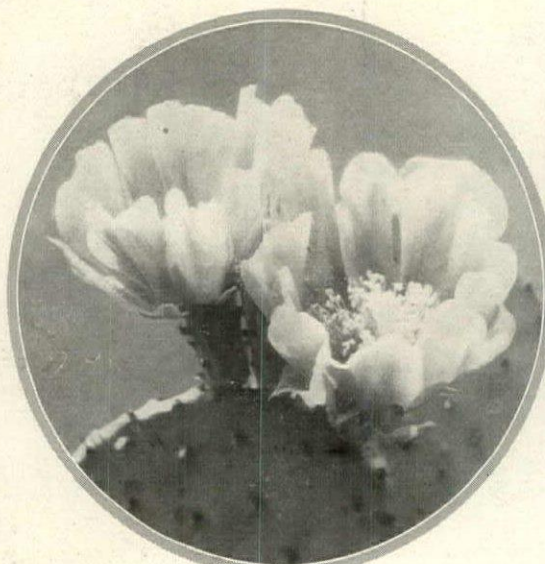
SUMMER CULTURE OUTDOORS

It is perhaps needless to say that with the exception of a few species such as the hardy *Opuntias*, cacti cannot stand exposure to our Northern winters. Some flower lovers who grow them as house plants make it a practice to set them outdoors during the summer months, transferring them from

the pots into the open soil of the garden. In many cases this plan is successful, but as it involves danger of bruising when repotting the plants in the fall, a safer scheme is to plunge pots and all, without disturbing the roots, in the chosen garden spot. In this way the same effects will be obtained inasmuch as the pots will be entirely buried in the earth. With the return of cool weather it is a simple matter to install the plants in the house for the winter.

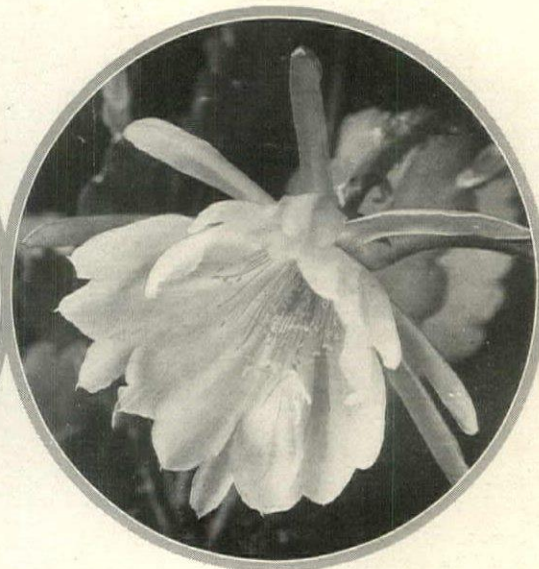
Successful cactus culture is largely a matter of proper soil and perfect drainage. A half-and-half mixture of good fibrous loam and fine siftings from the old lime rubbish of a brick building, with a little clean sand added, will fill the bill as far as soil is concerned.

As for drainage in the summer, select a warm, well drained spot outdoors which is sunny and has a good circulation of air. It is best at all times to avoid breaking or bruising the plant in any way. Especially does this apply to the late fall and winter when growth is most nearly dormant. During spring and early summer such injuries heal and form calluses more quickly, and the danger of resulting disease is lessened.



Photograph by Dr. E. Bade

Opuntias include many widely differing forms, one of which is here represented in the flowers of *purpurescens*



Photograph by Graves

Some of the *Phyllocacti* have especially large blossoms. The genus is characterized by flattened branches

A LITTLE PORTFOLIO OF GOOD INTERIORS

Line and color are the two essentials of decoration. Unfortunately these pictures show only the line, but the color is described. The lines of the furniture may suggest ideas for your own rooms. For further information address HOUSE & GARDEN Shopping Service, 440 Fourth Ave., New York



© M. H. Birge & Sons Co.

An unusual arrangement of the stairs adds individuality to the hall. The woodwork is white and the wall paper a peacock pattern in green and lavender; the furniture is consistently Colonial



Image & Watson, architects

The dining and breakfast rooms have been well combined in this suite. Walnut Queen Anne furniture, white woodwork and a two-toned rug are used in the dining-room, with painted furniture in the porch breakfast room beyond



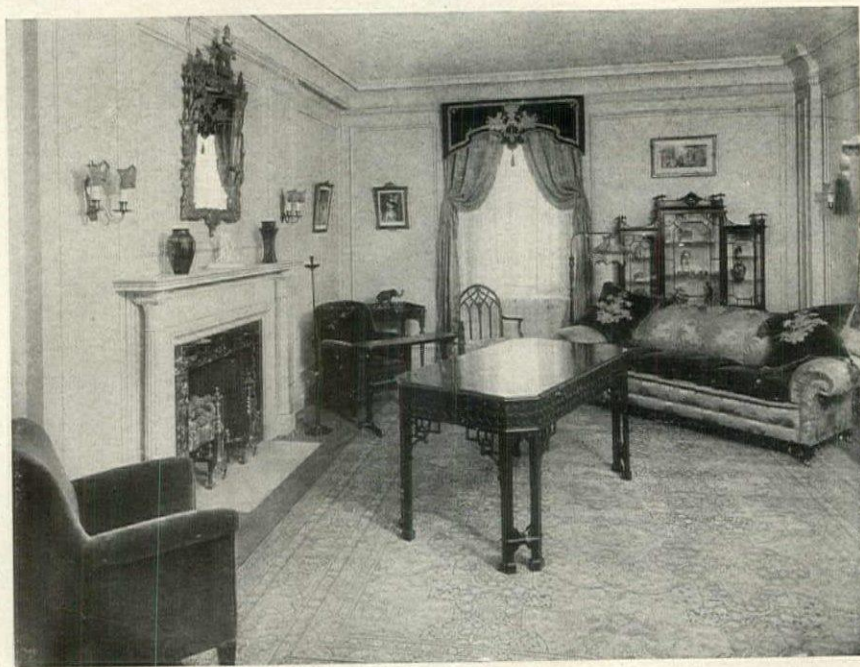
Edmund B. Gilchrist, architect

The trouble with most halls is that they are cluttered. Better far a Spartan Colonial simplicity as shown here



Chatten & Hammond, architects

In a pleasing fashion the furniture of this room is adjusted to its architectural background of white mantel and built-in bookcases. The walls are a light tan in small pattern, the rug a one-tone made from carpeting. Antiques and reproductions are well mixed and excellently arranged



Gimbel Brothers, decorators

A guest room with the modern note. The furniture is black lacquer with polychrome designs, the draw pulls of silver and blue. Carpet, grey Wilton. Hangings of printed linen with curtains of Phrygian lace and draw curtains of Punjab silk in natural colors

Gimbel Brothers, decorators

In this living-room, again paneled walls of light grey have been set a blue color scheme, a deep damask upholstered Chesterfield sofa with blue cushions, two chairs in blue antique velvet, Chippendale cabinet, table and mirror, a blue damask hangings. The rug is an Oriental

Gimbel Brothers, decorators

A little card room has been furnished in black lacquer with rouge color legs and body, Asia Minor hangings of printed linen with embroidered net curtains, silk sun curtains, a brocade lamp and vellum shade with adjustable frame





is & Clark, architects

A striking feature of this dining-room is the use of mirrors over the mantel and over the console on the farther side. Candelabra and sconces have been effectively placed. The paper is an old design in panels. The over-door decorations are interesting and harmonize with the scheme

Charles Platt, architect

The disposition of the furniture in this living-room is calculated to avoid crowding and to impart the restfulness of large spaces in addition to affording the valuable rug just display and even wearing. Note that the woodwork is considered sufficiently decorative in itself



Gimbel Brothers, decorators

A dining-room Chinese in feeling. Walls paneled and painted light grey, a mulberry Chinese rug with design in blue, rose and gold; brass sconces; floor lamp of black lacquer with floral designs and Chinese symbols. The furniture is Chinese in black lacquer with gold and jade spots

A. Raymond Ellis, architect

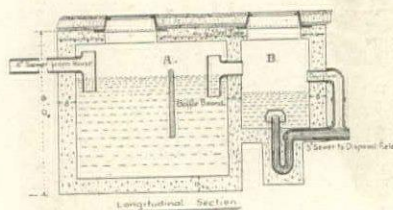
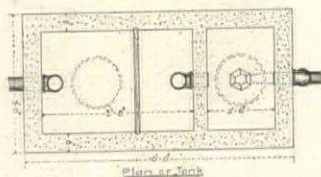
The effectiveness of this dining-room is gained by a few pieces of furniture, and those good in line and consistent in period. The room would be further enhanced by putting shirred scrim curtains on the French window, attaching the curtains against the glass top and bottom



SEWAGE DISPOSAL FOR THE COUNTRY HOME

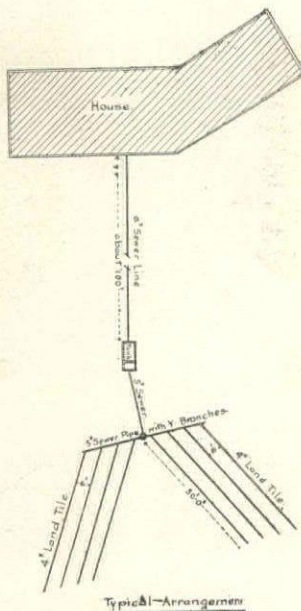
Three Systems that Are Suitable for the Good Sized House, the Summer Camp, and the Seashore Cottage

THEODORE CRANE

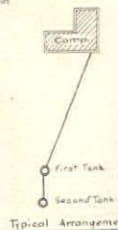
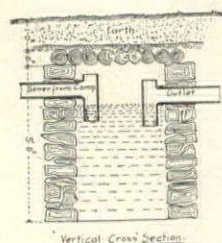
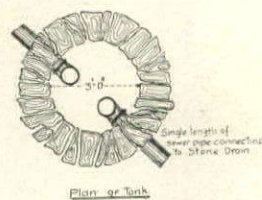


Though only 10' x 5' x 6', this tank takes care of the waste from a good-sized country house

The disposal field is a necessary adjunct to the septic tank. It is entirely underground



For a summer camp or shooting box the system is laid out according to these three plans



NEXT to the modern sanitation of the country house, the most important advance made in the last few years from a hygienic standpoint has been the proper disposal of the sewage. It was not many years ago that the owner of an isolated country home was satisfied with a new bathroom or two and gave little thought about the drainage system upon which they depended. Now, however, science has stepped in, and the slipshod methods that menaced not only the water supply of the vicinity but even the air of the house are passing away. The old-style cesspool is no longer a dreaded necessity. We have learned how to use the bacteria of sewage for its own destruction, and the result is the septic tank and disposal field of today.

THE SEPTIC TANK SYSTEM

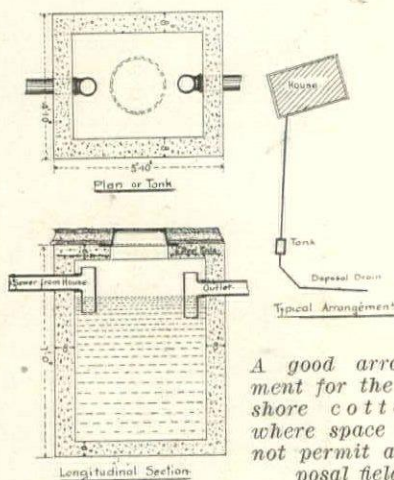
The septic tank is primarily a water-tight receptacle into which the sewage empties, located preferably a hundred feet or more from the house. At the smallest it should be large enough to hold an eight-hour output, and from there up the size will vary with the design. This tank serves a dual purpose as a place in which the sewage undergoes bacterial action and where the solid substances have an opportunity to settle.

From the tank a line of sewer pipe leads to the disposal field, which is usually a system of porous tile laid end to end in shallow trenches about 12" to 18" under the surface of sod land. The tile receives the effluent from the tank and distributes it under the roots of the grass which will absorb all moisture and odor.

There is at present quite a variety of disposal systems, all of which are designed to meet special requirements of location and soil. The usual practice for large residence work is to have a double tank, the sewage flowing from one part into the other, and from there syphoning periodically to the disposal field. This has the advantage of thoroughly flushing the entire tile bed, which enables a greater absorption, and is especially valuable when the contour of the land does not furnish adequate grade for the tile lines. Another variation is to use a twin disposal field having a head-gate which permits alternate use. In any system the solid substances, which represent only about one-quarter to one-half of one per cent of the entire sewage, should be removed from the tank every few years as required.

Let us see how the design works out in

actual practice. Consider that you are the owner of a country house with, say, four bathrooms and the usual kitchen and laundry fixtures. The garage is provided for elsewhere. The rain-water from your roof is also taken care of. You tell us there is an average of six in the family, with two servants. So with a customary per capita water consumption your house would be well served by a septic tank 10' long, 5' wide and 6' deep, divided into two com-



A good arrangement for the seashore cottage, where space does not permit a disposal field

partments and connected with a disposal field having from 200' to 600' of porous land tile, the number of feet of tile required between these limits depending upon the ability of the land to absorb moisture.

The tank can best be built of concrete and arranged as illustrated. The first chamber (A) receives the sewage and accumulates as sediment the solid substances. The second chamber (B), into which the liquids pass, gradually fills until emptied by periodic discharge of the automatic syphon, which passes the effluent on to the disposal field. As the tank is placed entirely under-

ground the sewage is kept warm, so that the tile beds will not freeze, even in extreme winter weather. In fact, the heat generated by the septic action tends greatly to obviate danger from the frost. Both the inlet pipe and the pipe connecting the two chambers should be fitted with tees and carried well below the level of sewage, so that the surface where the bacterial action is most efficient will not be disturbed by the inflowing and outflowing currents. For this same purpose a baffle board is run across the receiving chamber. The two manhole covers on top give access for cleaning.

Next comes the disposal field which should be located on the down-hill side of the septic tank where the contour of the ground will give proper grades for the tile lines. The connection is made by a line of sewer pipe, which should have a pitch of about $\frac{1}{8}$ " per foot. The grade of the disposal tile should be 3" to 6" in each 100', the steeper grade being used where the soil is more porous, in order that the liquid may flow through the entire course before leaching out. The sketch illustrates an arrangement of the disposal field, with a head-gate to permit alternate use of the two halves of the bed. It seems that if the tile have a "rest," they do better, and greater efficiency of absorption is obtained from the surrounding soil. The tile trenches are dug 18" deep, and are filled around the tile with porous material, either sand and gravel or cinders. No mortar should be used, the ends being merely butted together and a piece of burlap laid over the joint to prevent clogging the pipe while filling the trench. After the work is complete the whole area can be used as garden lawn. The cost of such a system, as illustrated, would be approximately \$600.

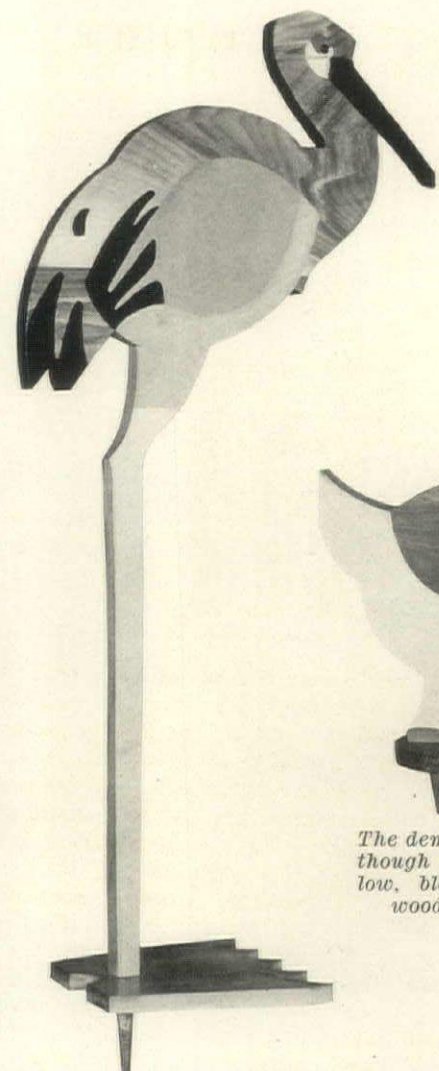
THE SYSTEM FOR THE SUMMER CAMP

Now all this applies particularly to a fairly large country house. If we consider a camp or shooting-box located in the woods the problem is somewhat different. Suppose that you desire to provide for seven or eight people as inexpensively as possible without polluting your nearby stream or lake. You expect to use the system only intermittently and probably not over a few months of the entire year. Furthermore, building materials are almost unobtainable. Consequently you would hardly be warranted in constructing a complete disposal

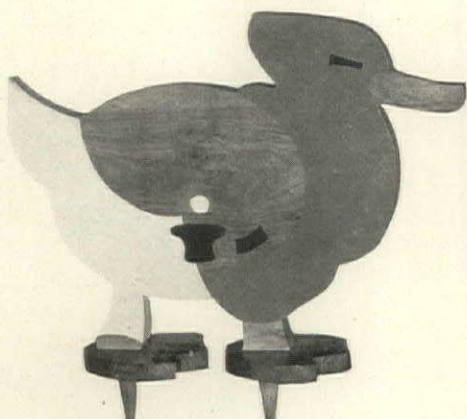
(Continued on page 52)

THE LAWN BIRD FAMILY

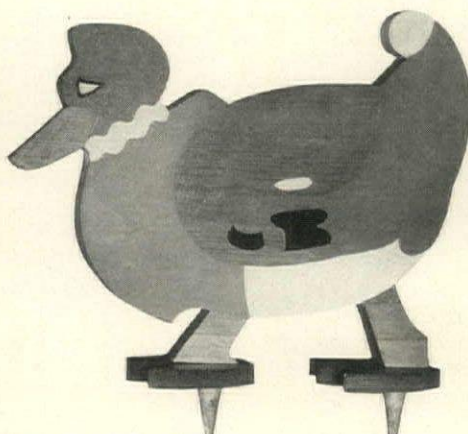
Grotesque as they are in color and form, these quaint things of painted and varnished wood will almost make a horse laugh. You plant them in the lawn or place them on the porch. They may be purchased through the HOUSE & GARDEN Shopping Service, 440 Fourth Avenue, New York.



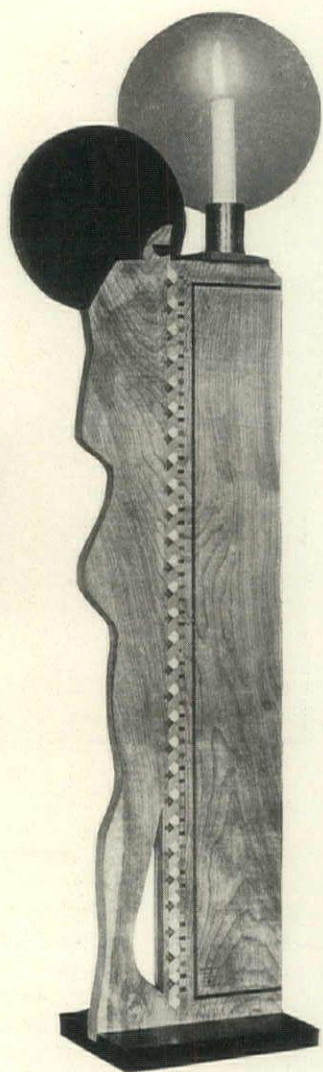
Spar varnish instead of feathers ensures the fastness of this big crane's natural wood, red, black and blue plumage. He costs \$8.50 as shown



The demure duck is life size, and though her colors are blue, yellow, black, white and natural wood, they will not fade



Naturally her mate looks more masculine. His colors are the same, though differently arranged. These two cost \$8.50 each



No, this isn't a bird—merely a lady candlestick for bungalow or porch. Natural wood, red, white and black spots to indicate robe. \$10



Here is the way to use the goose in the garden. Life size, white with a yellow head, black and white eye. \$8.50



The rooster is red, black, white and natural; parrot, greenish blue and red; cockatoo, white, yellow, red, black and natural. \$3.50 each



Aquarium bowl, 10½" x 10½" x 6¾". Stand, 10" high x 10½" wide, black, natural wood and water-blue. \$18 complete

TREES FOR ALL TIME

Permanent Planting and Its Bearing on Future Effects — Deciduous Sorts That Stand the Test

ROBERT S. LEMMON

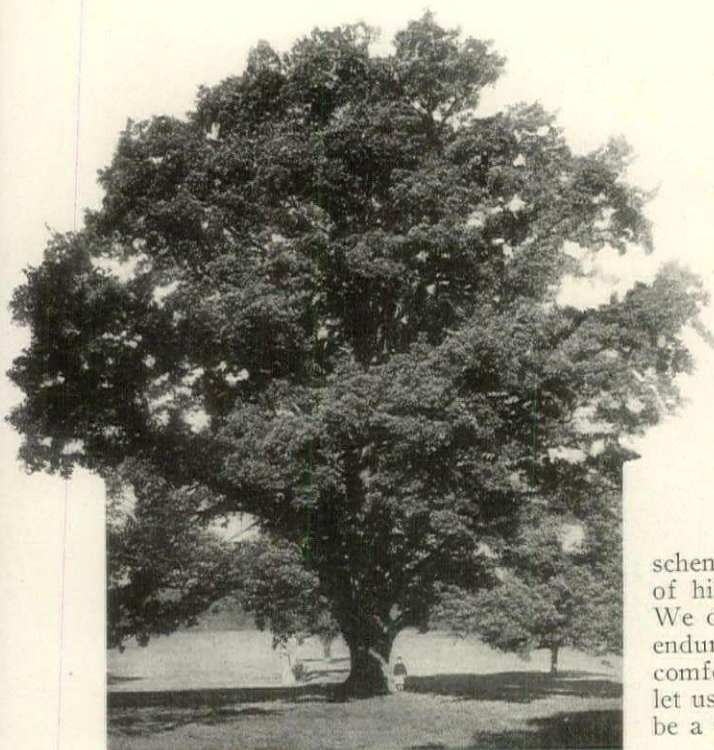


Photo by Brown Bros.

A white oak that has grown in the open is a far shapelier tree than one whose development has been hindered by crowding companions

WITH more than mere sentimental fancy it has been said that trees are the most human of all rooted things. They have character, long life, individuality. Comfort is in their shade on a summer day, and to the call of the wind each answers with a different voice. We may not say that trees have souls or power of mind, but there is something in tree worship, for all that.

It is perhaps trite to cite the elms of New England or the oaks of Great Britain as embodying all that is best and most satisfying in deciduous trees, but they are perfect examples of the principle which should underlie the great majority of tree planting

for shade and ornamental effect. For these great fellows, perhaps two or three or four hundred years old, are permanent. Long life has given them not only immense stature, but a wealth of associations as well. They are integral parts of their sites, as essential to the general scheme as the house, the background of hills, almost as the ground itself. We design our houses that they may endure, may increase in satisfying comfort as they grow old with us; let us so plan that our trees, too, shall be a worthy heritage to others.

PLANTING FOR PERMANENCY

It would seem to be obvious enough, this matter of planting for the future, and of a truth many a man attempts it in all good faith. Yet how often is partial or complete failure the result, for some reason which lack of knowledge or foresight failed to consider.

Take, for example, the choice of varieties. It is a great temptation to set out the quickest growing sorts for the sake of their relatively speedy results. But, with few exceptions, the rapid growing trees have weak wood. For 60' to 70', perhaps, they shoot up splendidly, lifting and spreading long limbs and casting shadows far across the lawn. Then, when they have reached their prime and are beautiful for all to see, comes a summer gale which in five minutes leaves them but wrecks of their former selves. Slender branches, graceful and perfect in outline but brittle at heart, are ripped off and tossed a dozen yards away. Crowns are shattered, trunks split, beauty and symmetry forever destroyed. A strong and certain growth is essential to the tree which shall withstand the winds, and, except in a few species, this is not characteristic of the rapid growing varieties.

But all this is destructive rather than constructive. Let us therefore consider some of the best of those deciduous species which are at once sturdy, permanent and good to look upon.

In their fulfillment of at least the first of these requirements the oaks are proverbial. Several species, too, are well adapted to lawn planting, among them the red, the white and the pin oaks. The first mentioned is especially good, as it is practically proof against the attacks of insects and disease, besides being well shaped.

When considering any of the family as possibilities for the home grounds, it is well not to judge them by specimens seen growing in the woods. Forest trees as a rule are less spreading and have higher set branches than those which develop in the open, and may be more or less uneven through the crowding of other specimens about

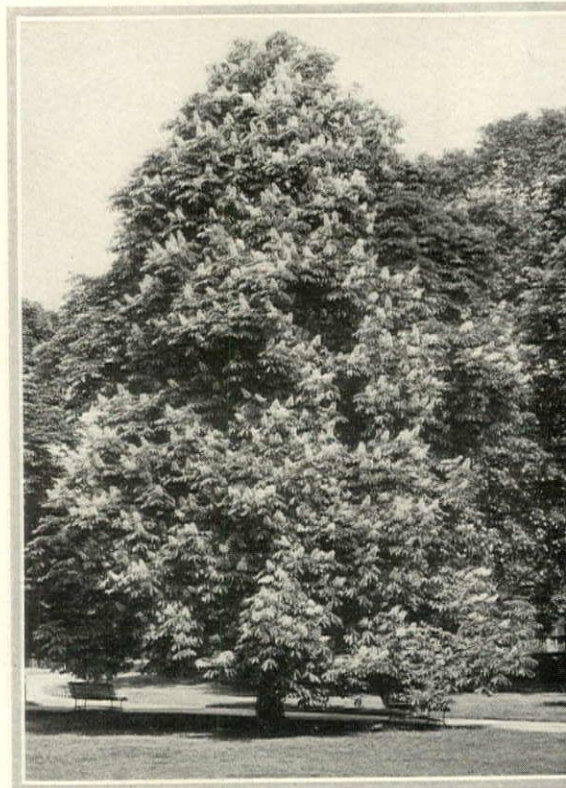


Photo by Brown Bros.

The horse-chestnut is not only a well formed, symmetrical tree, but an especially beautiful one when covered with handsome flower spires

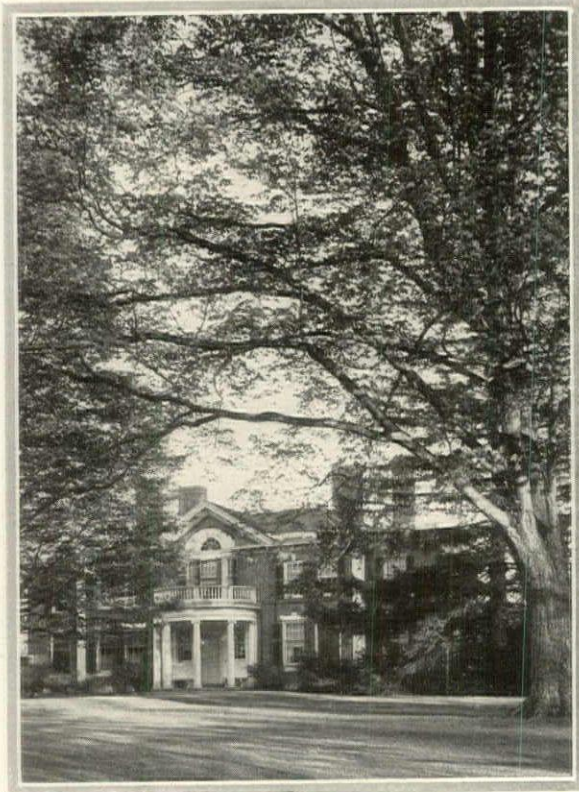
them. The oaks as a family cannot be successfully transplanted after they are seven or eight years old. Seedlings under that age should be taken up without harming their long tap roots, or, if you prefer, it is a simple matter to grow as many as you want from selected acorns.

THE BEST MAPLES

Perhaps the most popular ornamental trees, at least in the Eastern States, are the maples. From the numerous members of the family so used three stand out as being especially desirable: the Norway, the red or swamp, and the sugar maple.

The first of these is the dense, round-headed tree with broad leaves that turn clear yellow before falling, which form such superb avenues in some of our suburban towns. No sight in the tree world more beautiful than a perfect Norway maple in October, and when we learn that it is one of the few exceptions to the rule that quick growers are weak, its desirability as a home grounds tree is still further enhanced. There is a red leaved variety, too, which is sometimes used in combination with the yellow and makes a good contrast where two colors are desired.

The true red maple is indeed well named. Beginning with its red blossoms in spring, the color scheme is repeated in the scarlet autumn leaves and, after they have fallen, in the red twigs which hold their tint through the winter. It is desirable in every way, spreading, symmetrical tree from 50' to 100' high, with a head of slender, erect branches. The bark is a dark grey, somewhat flaky, and the limbs pale by contrast.



Trees should not be planted too close to the house, else they will seriously interfere with the circulation of air during the summer

But the finest of all the family, in the opinion of many, is the sugar maple, the sort whose sap is so eagerly gathered for boiling down to syrup and sugar. It is a tree of superb form and stature, sometimes reaching a height of over 100', compact and symmetrical with its many upright limbs forming an oval head which spreads somewhat with old age. Beautiful throughout

ever anything merited the adjective stately, that thing is here. A trunk straight as a mast and sometimes 200' from root to crown; short branches forming a regular, conical head and in early summer bearing greenish yellow, tulip-like flowers; lobed leaves 5" or 6" long and broad, dark green above and paler beneath, which change to clear yellow in autumn—these are a few of the characteristics which the tulip tree possesses. It has been said that the wood is brittle, but I have never seen any indications of this in growing specimens. I know of several which have successfully withstood gales which wrecked maples, chestnuts and even spruces growing near by, and this in summer when the foliage adds immeasurably to the strain put upon the branches by the rush of the wind.

So much for the choice of such species as will do their full part in making your place of the future a spot of tree beauty and lasting charm. Now just a few lines on the theory and practice of their arrangement.

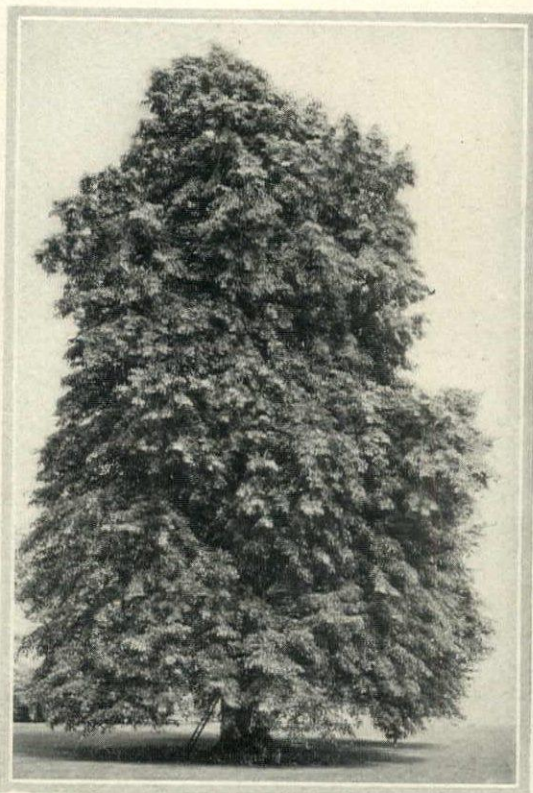
THE THEORY OF ARRANGEMENT

Trees should shade the ground around a house rather than the house itself. Too often this fact is overlooked, and we find the branches so closely crowding about and above the building that free circulation of air in summer is seriously impeded. If you consider a moment you will realize that a house which is itself densely shaded but surrounded at a distance of a few yards by an expanse of sunny and superheated ground will be less cool than one which, while the sun may strike it directly, is encompassed with a ring of shaded, cool air which has a chance to circulate and penetrate through the open doors and windows.

From the landscaping as well as the on-looker's standpoint, the quantities of sunshine and shadow in any tree planting on the grounds should balance. Nor does this refer merely to the actual shade area created by the trees—their own habit of growth has no small effect upon it. From a distance an elm or a white birch, for example, gives less of an impression of shadow than does a horse-chestnut or a European linden, simply because more light passes through the interstices of its limbs and foliage.

It is a mistake to plant a great variety of trees, lest the effect be too hodge-podge. Out of ten specimens, perhaps six should be of one species, three of another, and one of a third. As a general rule they will look best when irregularly grouped instead of being spotted around like the dots on milady's veil. Exceptions to this plan are found in the case of those too rarely seen perfect specimens which, like the elm, the European linden and a few others illustrating this article, are so superb as to dominate all the surroundings by their very magnificence of form and stature. But wherever and whatever your trees may be, remember that permanence should be one of their greatest charms.

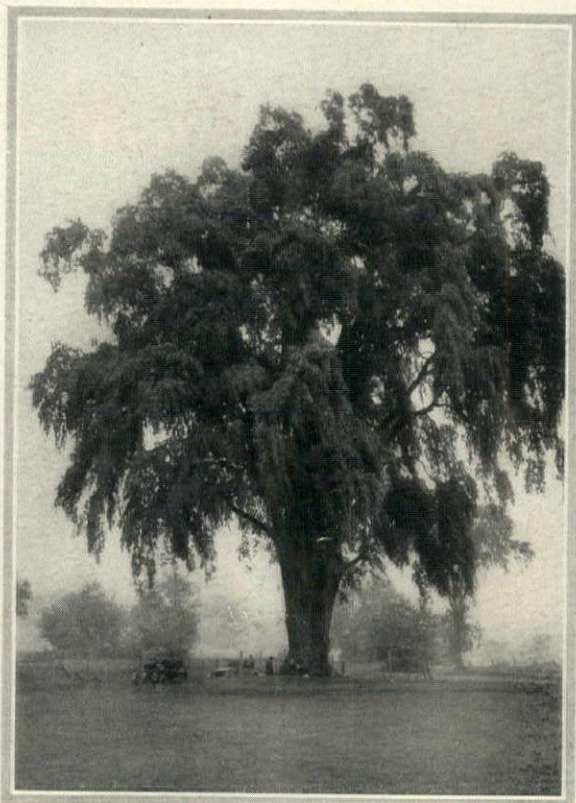
Speaking generally, there are two sources from which your trees may be



Courtesy Davey Tree Expert Company

A hundred-foot European linden like this convinces one that tree worship is not all sentimental fancy or idle imagining

obtained, the nurseryman and Nature. Young stock from the former is apt to be of better shape and more easily transplanted than the wild specimens, for it has had better care and enjoys the advantage of being taken up and prepared for shipment by professionals who thoroughly understand their business. On the other hand, trees of larger size and consequently more speedy effectiveness may be obtained from their wild sites. If care is taken to select carefully those specimens which are of well-shaped, healthy growth, the results from "natural" trees are often excellent.



Courtesy Stark Bros.

The American elm is at once graceful, strong and effective in appearance. It is a memorable feature of the New England landscape



Courtesy Stark Bros.

The sugar maple is perhaps the best of all its popular family. In autumn it glows with a wonderful harmony of yellow, red and orange

he year, the sugar maple reaches its greatest glory in the autumn, when it glows with a wonderful harmony of yellow, red and orange. Whether planted singly or in groups, it is worthy of the best traditions and ambitions of the tree lover.

ELMS, TULIPS AND OTHERS

The American elm, a splendid tree in localities where the destructive beetle which feeds on its leaves is under control, is too well known to need description. Its vase-shaped outline is at once graceful and strong, and especially effective at a distance. In the New England States it is a feature of the landscape which can never be forgotten. The European linden, too, is a tree which should not be overlooked. At times it attains a height of nearly 100', and its sturdiness and shape endear it to every real tree lover. It is one of the rapid growers which are well adapted to permanent planting.

We come now to a tree which is excellent like for shape and bloom, the common but so seldom seen horse-chestnut. One of the photographs tells the story of its appearance better than could words. Remember, looking at the picture, that the terminal spikes of flowers are cream colored and come out with the leaves. It, of course, has no value as a nut tree, for its large fruits, ripening late in the summer, are in-ible although very handsome.

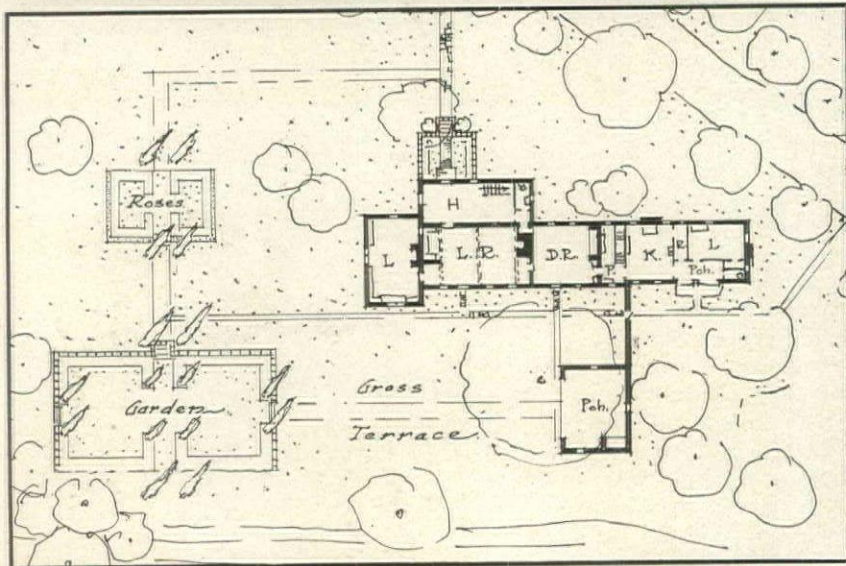
There are several good species besides those already described, but I am going to include this short list with one which elms, personally, to be the best of all. It is the tulip tree or yellow poplar, and if

"ALLONBY," THE COUNTRY RESIDENCE OF CHARLES PLATT, ESQ., AT LAVEROCK, PA.

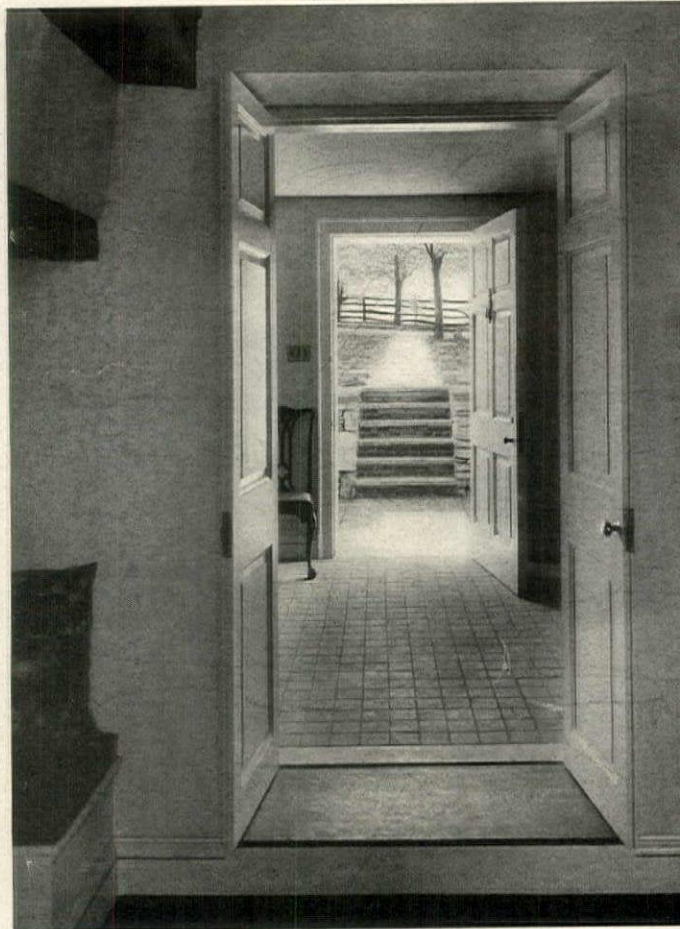
JOSEPH PATTERSON SIMS, *architect*



As found, the house looked not unlike Belgium after Von Kluge got through with it. As restored and enlarged it is thoroughly characteristic of the Pennsylvania stone farmhouse type and truly Colonial



The house and the garden have been treated as separate units, trees and shrubbery surrounding the house, the more formal development being kept for the rose and kitchen gardens



Stand about where the L is in the living-room on the plan, and you command a pleasing vista across the bricked hall and through the housedoor to the forecourt



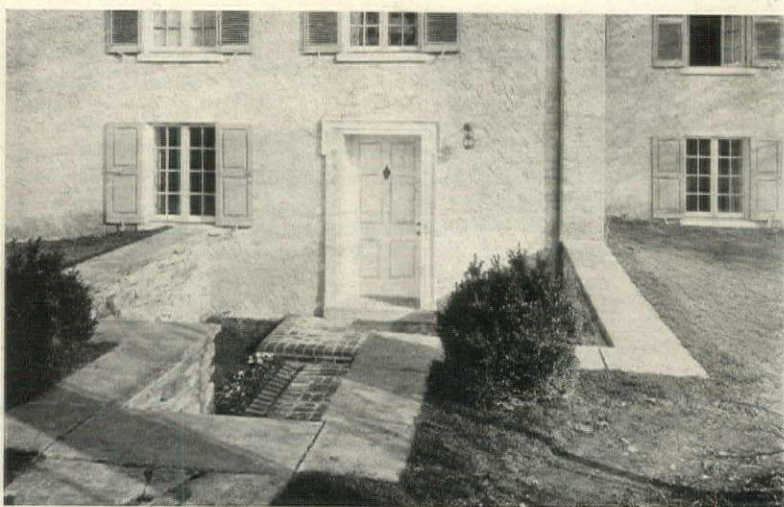
The library was an addition to the original structure. Its finish looks no more modern, however, than the other rooms, as the Colonial simplicity was reproduced



An old fireplace at the end of the dining-room was turned into a lounge the original ingle window—an unusual Colonial detail—being preserved intact



To the right is the living-room fireplace as found; above, the same fireplace preserved. The walls are sand finished and in every way the Colonial spirit has been maintained. A study in contrasts that proves no house to be neglected beyond the possibility of saving



Among the pleasing additions was a sunken forecourt in front of the housedoor, with a brick pavement laid roughly in wide bond

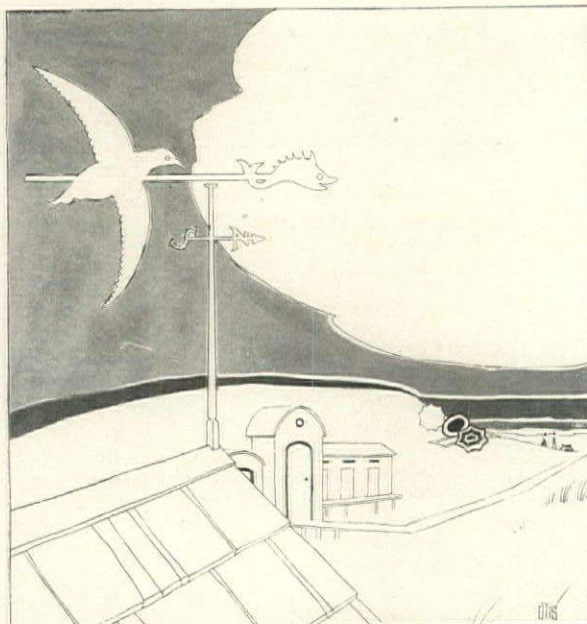


WHERE IRON ENTERS INTO THE GARDEN

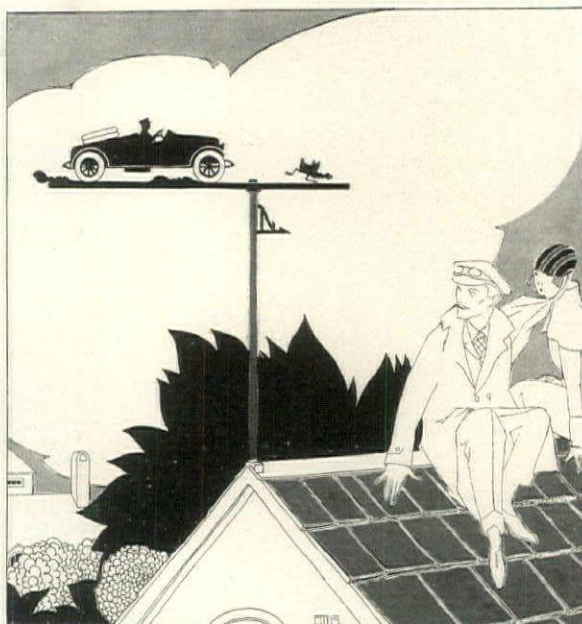
There are some uses in the garden for which no fabric is better fitted than iron. Its durability resists the weather. Those who cannot resist the temptation of buying the objects shown here can purchase them through the HOUSE & GARDEN Shopping Service. For names of shops address HOUSE & GARDEN, 440 Fourth Avenue, New York City.



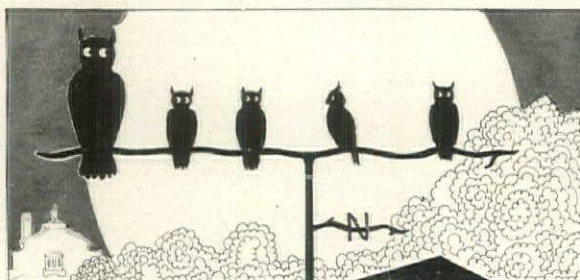
Reproduced from an old lantern that used to be swung in the shrouds of a sailing vessel, this makes an interesting spot when hung in the porch or sun room. Verde antique finish, \$20.00



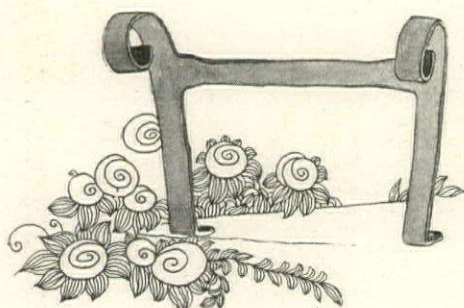
Intended for a boat house, or seashore cottage, a gull in pursuit of a fish. Of hand-forged wrought iron 31 3/4" long by 21" high in black finish. It has a weather-proof bearing, \$20.00



Suitable Colonial with storied portico stucco porch, pendant in hand iron, well the gl costs com



And this is why the hen crossed the road. Realistic and intended to cap the roof beam of a garage. It is 38" long and 15 1/2" high, of hand-forged wrought iron, with weather-proof bearing, \$30.00

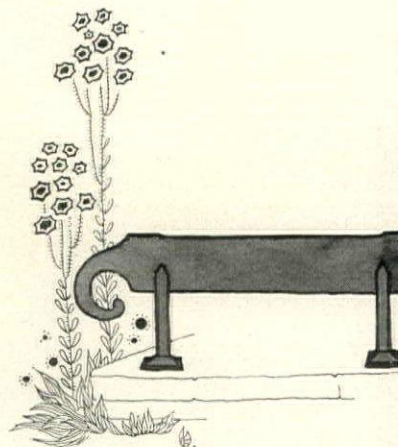


Of antique lines, wrought of hand-forged iron, is a footscraper that can be built into concrete or masonry or screwed into wood floor. 8" wide by 5 3/4" high. Black finish, \$5.00; galvanized, \$5.50

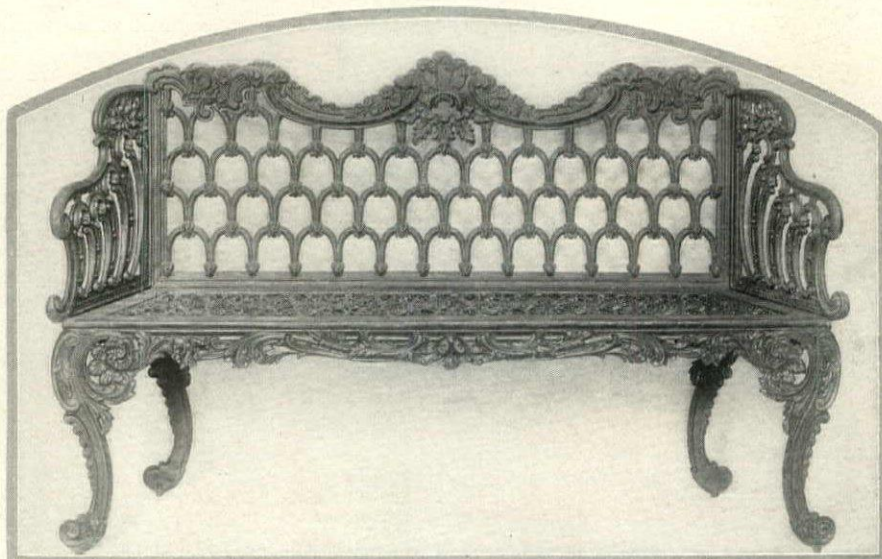
Nature supplies the moon; the rest of the picture can be bought in wrought iron and put on the barn. 36 1/4" long by 19 1/2" high, and highly effective. \$28.00



Dutch porch lantern comes in black or Pompeian verde finish with lights of rough or frosted glass, 28" long by 9 1/2" wide, electric wired, complete, \$20.00




Based on antique lines, wrought iron footscraper will add an interesting note of life to the entrance. Its top curved useful. 10 3/4" wide by 4" high. \$5.00; galvanized, \$5.50

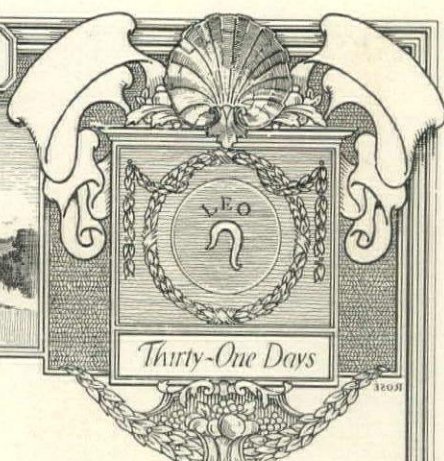


There are some types of benches where iron furniture alone is suitable and a sort of garden this Rococo Settee would be mirably, \$100.00


The GARDENER'S KALENDAR



Eighth Month



Thirty-One Days



AUGUST, 1916

Morning Star: Venus

Evening Star: Mars

SUNDAY	<p>This Kalendar of the gardener's labors is aimed as a reminder for undertaking all his tasks in season. It is fitted to the latitude of the Middle States, but its service should be available for the whole country if it be remembered that for every one hundred miles north or south there is a difference of from five to seven days later or earlier in performing of garden and farm operations</p>	<p>6. 7th Sunday after Trinity. A bed of strawberries set out now and well cared for will produce a good crop next season. Strawberries delight in a very rich soil.</p>	<p>13. 8th Sunday after Trinity. Full moon. Evergreens can be transplanted now. Use plenty of water and keep the plants sprayed until root action has started and they have a grip.</p>	<p>20. 9th Sunday after Trinity. Pope Pius X died, 1914. Carnation plants should now be moved from the field to the greenhouse. Select a dark day, and shade until they root.</p>	<p>27. 10th Sunday after Trinity. On any indication of yellows or curculio in the peach orchard the tree or trees affected should be instantly removed and burned.</p>
MONDAY		<p>7. Order what bulbous plants you want for winter forcing in the greenhouse. Buy good bulbs of tulip, hyacinth, narcissus, lilies, calla lilies, alliums, ornithogalum and freesia.</p>	<p>14. Relief of Pekin, 1900. Onions if stopped in growth should be pulled out and laid on their sides to ripen. After the tops have dried, twist them off and store the roots.</p>	<p>21. Watch for red spider on your evergreens; many fine specimens are ruined by these pests. Frequent spraying with any good standard insecticide will control them.</p>	<p>28. How about natural planting of some of the bulbs that multiply and establish themselves in this climate, such as the trillium, crocus, narcissus, lily-of-the-valley, snowdrop, etc.?</p>
TUESDAY	<p>1. Sun rises 4:56; Sun sets 7:16. Germany declared war on Russia, 1914. Make a final clean-up of the whole place, get all the weeds out and mulch everything possible to offset dry weather.</p>	<p>8. Muskmelons should be ripening outdoors. Place boards under each melon, do not step on the vines, and do not pull the fruit; it will leave the vine of its own accord when fully ripe.</p>	<p>15. Panama Canal opened, 1914. Several useful greenhouse plants, started now from seed and grown in pots, will flower this winter. Among them are stocks, mignonette, clarkia, nicotiana, etc.</p>	<p>22. Cuttings of all bedding plants like geranium, coleus, etc., should be taken now. These stock plants are to be carried over in the greenhouse for next spring's bedding.</p>	<p>29. Japan annexed Korea, 1910. Raising seedling dahlias is very fascinating. Gather the seed pods now and hang them in bags in a dry place. Later the seeds can be removed.</p>
WEDNESDAY	<p>2. Nothing will give better returns in the cool greenhouse than sweet peas, and this is the time to sow; solid benches are preferable, though raised benches or pots will do. Buy the very best seed.</p>	<p>9. Late cabbage and cauliflower should now be set out. Keep the plants well watered until root action starts, and well sprayed to kill the cabbage worm until they start to head up.</p>	<p>16. Why not sow a big batch of perennial seeds now, if you have coldframes to winter them in? This is a very inexpensive way of making large perennial plantings.</p>	<p>23. Be sure the greenhouse is in shape for the winter. Any loose glass should be rebbed, the boiler looked over carefully and any new parts required should be ordered.</p>	<p>30. Roses will be starting into active growth again. Encourage them with top dressings of bone meal or wood ashes and keep them well watered. Liquid manures are also beneficial.</p>
THURSDAY	<p>3. King of Norway born, 1872. Of late years we have had very fine fall weather; take advantage of this condition by sowing several rows of peas in the garden this month.</p>	<p>10. This is an excellent time to go around and label all the plants in the perennial garden; in case you desire to transplant any, or when digging the border in the spring, it avoids losses.</p>	<p>17. Keep the runners removed from the strawberry beds, and the plants well cultivated. Do not allow them to suffer for want of water—they are now forming their crowns.</p>	<p>24. A careful study should be made of bulb plantings for this fall. Most people buy the bulbs before they have decided what they intend doing with them, and the results are unsatisfactory.</p>	<p>31. Sun rises 5:26. Sun sets 6:35. This is an excellent time to sow any lawns that may be contemplated. Permanent pastures of all sorts of mixtures can be laid down at this time.</p>
FRIDAY	<p>4. First Atlantic cable message, 1857. Make two sowings of beans this month. Keep the rows about 15" apart so they can be easily protected from early frosts.</p>	<p>11. Fall spinach can be sown now. Make successive plantings until October. That which matures now can be used; the rest can be protected over winter, and will be extremely early.</p>	<p>18. Emperor of Austria born, 1830. Keep a sharp lookout for borers on trees, particularly locust, poplars and fruits. Kill them by running a steel wire in the openings.</p>	<p>25. Do not neglect spraying garden crops and orchard with Bordeaux mixture, as in this month above all others the fungous diseases are at work and must be kept in check.</p>	
SATURDAY	<p>5. This is the last opportunity for setting out late celery; use plenty of water when planting. Early celery can now be blanched for table use, with a few boards.</p>	<p>12. Make two sowings of lettuce this month. Sow good big patches which will keep up the supply until Christmas if properly grown and protected later on.</p>	<p>19. Arabic sunk, 1915. Keep all dead flowering shoots removed, particularly from perennials. They make a garden unsightly and reduce the plant's vigor.</p>	<p>26. Keep all new shoots on vines and climbing roses properly tied up; fall storms and gales will soon be here and may destroy years of growth in a few minutes.</p>	

Very hot and still the air was,
Very smooth the gliding river,
Motionless the sleeping shadows.
—Longfellow.

"Plow deep, while sluggards sleep,
And you shall have corn to sell and to keep."

The highest known waterfall is the Grand Falls, in Labrador. It drops 2,000' more than twelve times as far as Niagara.

S E E N I N T H E S H O P S

The articles shown on these pages may be purchased through the HOUSE & GARDEN Shopping Service, or the names of the shops will be furnished on application to HOUSE & GARDEN, 440 Fourth Avenue, New York City.



"The anchor that held" is a candlestick of iron with verde green finish fitted with a bayberry dip. Entire profits to go to wounded French and Belgian soldiers. \$1.00



Vizualize this set of English Faience—a copy of old Chelsea—arranged on a table, and you see it suitably used. The center vase is 5" high by 5½" wide. \$6.50. The smaller vases are 5" high by 2½" wide. \$4.00. The set complete, \$22.50



Designed as a rum j but suitable for other purposes. It is of rene glass with iridescent golden and yellow coloring. 3½" high. \$2.50

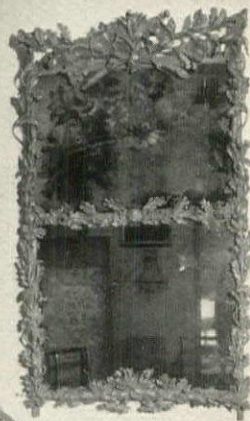


Designed by J. B. Platt

Hand embroidered with gaily colored worsteds in fantastic designs, these heavy linenized crash pillows serve well for porches. The edges are bound with worsteds. \$12.00

Courtesy of Patricia Irwin

Victorian furniture revived. The mirror frame is gilded oak leaves with painted flowers. Table of black lacquer with gold decorations and painted roses. Chairs and tabourets of gilt upholstered with blue damask; these three being Louis Philippe

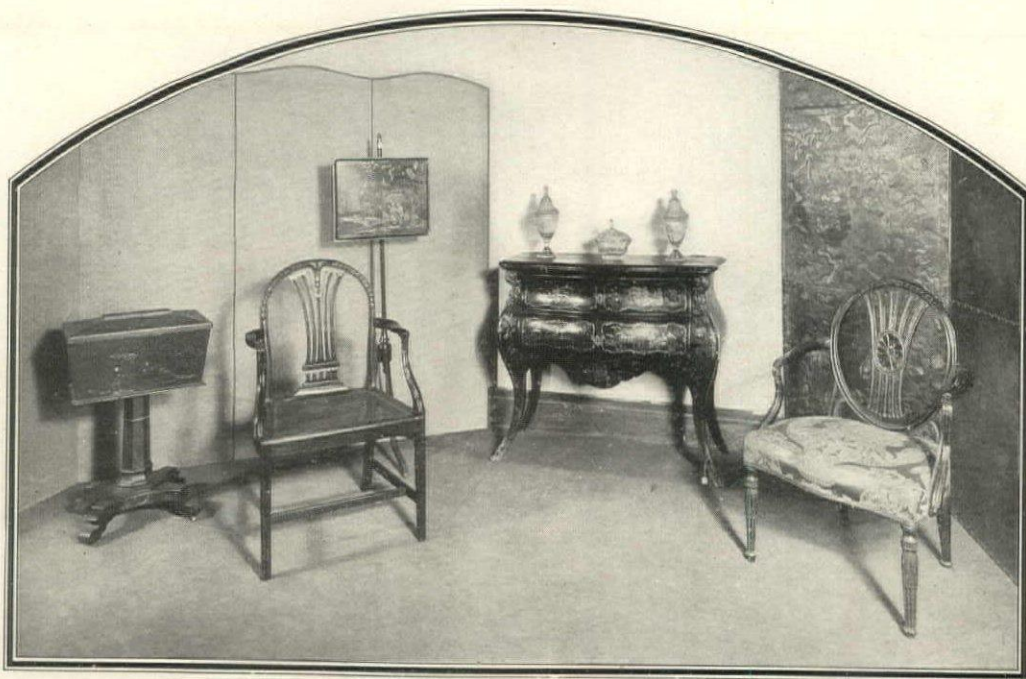


The varieties of garden baskets are This style is substantially woven and with leather. A leather kneeling added to the equipment of usefulness. \$10.00



Courtesy of Patricia Irwin

Oak William and Mary style table of unusual design. A 17th Century chair. A small Queen Anne style chair with a spiral support and a crust top. An 18th Century mahogany chair in a cage. And an English decorated screen. The can and compote Waterford glass. flower painting Dutch artist of 17th Century



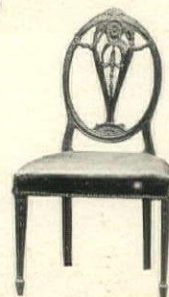
Courtesy of Patricia Irwin

A group in lacquer: Adjustable pole screen of black lacquer with Chinese decorations. Louis XV commode of red lacquer with gold mounts and ormolu decorations. Hepplewhite chair with damask seat. Worktable of black lacquer in Chinese style. Waterford glass compotes



Courtesy of Susan Westrope

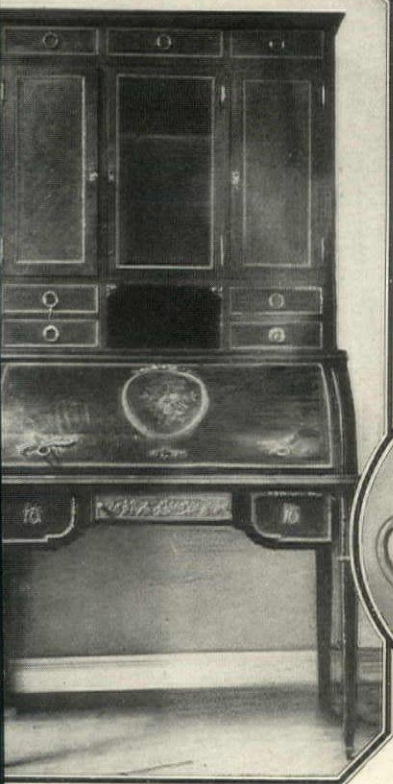
One of a pair of Adam chairs with carved backs and tapering legs ending in the characteristic spade feet



Completing the pair of Adam chairs, this shows the center splat design of drapery suspended over medallions



Painted furniture of grey green with gaily colored flower decorations. Table 26½" high and 29" long. \$20.00. Chair, 35" high, rush seat. \$20.00. Footstool, 8" x 14" x 4"; \$4.00 plain, \$5.00 decorated



Courtesy of Susan Westrope

Available for the living-room comes a Louis XVI secretaire with inlays of rosewood and saucwood, arranged in diamond and floral design. The ornaments are old bronze



Designed for iced tea or lemonade is a new set of iridescent glass with attractively shaped glasses and pitcher. An odd and useful feature is the cover to the pitcher. Complete, \$5.00



Courtesy of Susan Westrope

The mirror is convex surmounted by a gilt eagle. It is 4' high and 31" wide. The cupboard is of oak with bulbous turned leg and inlaid doors. Two drawers are included below



Eternal vigilance throughout the summer is the price of immunity from insect pests

WHILE August is usually considered a slack month in the garden, as a matter of fact some of the most important jobs of the year are to be done at this season. Several of next spring's vegetable crops, and your supply of biennials and perennials and hardy annuals for the flower garden will depend on your efforts during the next few weeks. And this fall's most important vegetable—celery—is still to be grown.

LAST CALL FOR VEGETABLES

If you act promptly, have the soil in good condition, and use early varieties, there is still time to plant for late fall use a number of the more quickly maturing vegetables, such as beans, beets, turnips, peas, lettuce and radishes. Beets planted now will be prime for canning small when the weather is cool. If the season is favorable and they are large enough to store, they will be much better for table use, and will keep better than those which have completed their growth. A caution which has been given in these columns before, but is worth repeating again, is to firm carefully into the soil all seeds planted during dry weather. Still better, use a modern system of irrigation, ensuring not only perfect germination, but rapid, strong, healthy growth during the early fall months, when conditions are usually right for splendid development, provided there is enough moisture in the soil.

To the uninitiated it may seem like a waste of time to give much attention now to the asparagus and rhubarb beds. But if the fall growth can be made vigorous and healthy, a bumper crop for next season is practically assured. Very often both these crops are entirely neglected during the latter part of the season, and then the gardener complains of their beginning to "run out." Cultivation should be continued and all weeds kept out until the end of the season. The asparagus tops should be kept sprayed with arsenate of lead to prevent the asparagus beetle; if rust appears (it shows by the premature yellowing of the foliage and elongated small swellings and cracks on the stems) cut the stalks clean back to the ground, rake up, and burn.

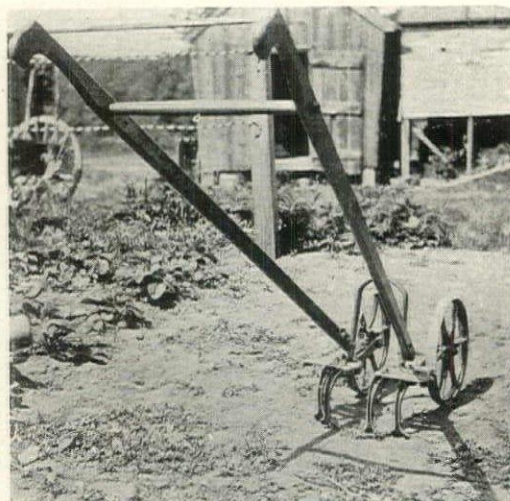
A good planting of asparagus, well cared for, will last indefinitely. Rhubarb, however, to be of prime quality, should be taken up and replanted every few years. A large clump will make half a dozen plants. If you don't need them, throw or give away five. Change the situation for the new plants if convenient; otherwise, they may be put back in the same place, after the ground has been well forked up and enriched. It will be well to trench it, working under a good dressing of manure.

KEEP CELERY GROWING RAPIDLY

Celery is at once an easy and a difficult crop to grow. It is a gross feeder, revels in an abundance of water, and is comparatively free from insects and usually from rust, the disease most likely to attack it. You probably have the early crop well along in the garden, but it is not too late to put in more for the winter supply, provided the soil is well enriched and good, strong plants are used. It is always better to buy transplanted or "re-rooted" plants; the cost will be little more, and they will begin growth so much more quickly than seed-bed plants that nearly a week will be saved in getting them well under way. The use of a starting mixture of dried blood or guano and fine bone in the rows will also be very serviceable. If you have your own

plants, don't be afraid to trim them back quite severely when setting out; the extra foliage will be but a handicap at first. If dry, run water in the furrow until it ceases to soak away readily before putting in the fertilizer; then cover in and plant. The furrow may be left 2" or 3" below the surface to fill in as the plants start growth, but the old system of planting in a deep trench is now little used.

Top-dress the growing plants with nitrate of soda, keep them free from weeds, and keep the soil worked up to the plants as they grow, so that the stalks will tend to an upright position. If the weather is dry they can hardly be given too much water, but if the watering must be done with a hose, apply it late in the afternoon and be sure to use enough to give the ground a thorough soaking. The earliest part of the crop should be ready for use toward the end of this month. When it is well grown, and two weeks or so before you want it for use,



No cultivation is satisfactory unless done with the right implements. Here is one of the most useful

blanching should be begun. This can be accomplished by hilling or the use of boards, but for the home garden the individual blanchers, made of heavy paper, are very convenient and do the work nicely. They cost little and can be used a number of times. By keeping a dozen or more plants in different stages of blanching, a continuous supply for the table will be available.

THE NEW STRAWBERRY BED

There is no necessity of waiting a whole year for your berry bed to bear if you will get busy at once, prepare the soil properly, and get good plants. There is no better place to use the compost heap you have been accumulating through the summer than on the new strawberry bed. And a good coating of well rotted manure, in addition to that, will be none too much. A good dressing of high-grade fertilizer should be raked in broadcast. In the rows or hills use fine bone and blood or guano, with twice its bulk of humus added; this makes a mixture which will not harm plant roots if mixed with the soil, although they are very easily injured by chemical fertilizers. It is always risky to use sod ground for strawberries, as the large white grubs which are likely to infest such ground will kill a great many of the plants in no time.

YOUR ALL-YEAR GARDEN

August Activities Among Flowers, Vegetables and Small Fruit

F. F. ROCKWELL

By all means use potted plants. They are every way the most satisfactory; with ordinary good care, in good soil, they will yield a handsome crop next June if planted early this month. A convenient way is to plant in rows 12" to 18" apart, omitting every fifth row. The plants should be grown by the hill system, which is generally the most satisfactory for the home garden, should be at the same distance in the rows. Extra strong growing varieties, in rich soil, will require a full 15" of room. In planting, soak the roots in water for a few minutes before setting—enough to let them get thoroughly saturated, not to crumble away in handling. A convenient way is to place several rows upright in a flat, tight flat, and pour in water slowly until they have taken up the right amount. Then they can be used, without moving the plants again, to distribute them along the row.

In ten days or so, when they have taken a light dressing of nitrate of soda, the soil well cultivated, to maintain a dust mulch between the plants. Watch closely and cut all runners as fast as they appear. This throws all the energy of new growth into the development of a strong crown for each plant, with the result of a full crop next year.

Have you any of the new fall bearing berries coming on, and if so, have you made any provision to keep the fruits clean when they develop? If not, mulch the bed as soon as you stop cultivation, and let the berries begin to grow. A good way of doing this is to benefit the lawn at the same time by letting the grass grow a little longer than usual between cuttings, then clipping it quite so close, and using the cut grass as a mulch. Put the freshly cut grass on each cutting as far as it will go, 2" or 3" thick.

Some of the fall sorts tend to set too many fruit. Better berries may be had by removing some of the blossom bunches, and by curtailing the propensity of the plants for throwing runners and forming new flowering plants.

START PANSIES AND PERENNIALS NOW

In getting a good stand of pansies and biennials and perennials which should be started now for wintering over in the frames, the important thing, next to good seed, is properly prepared soil. An old cold-frame, which may be shaded with a cloth or slat sash, is an excellent place for the seed bed. Fork it up and prepare it; then surface it with 2" or so of light, sandy soil—adding the sand if necessary—about half as much commercial humus as soil. This will give a very light, moisture-holding soil which will not pack down or bake, and through which the seeds can come up readily. Soak the soil in the frame until the water begins to show on the surface before putting the prepared soil on top. The seeds should be sown thinly in rows 4" to 6" apart, pressed into the soil, but covered from sight, watered lightly and shaded. Just before they begin to germinate sprinkle flowers of sulphur over the surface as a dust gun. Remove shading when plants appear.

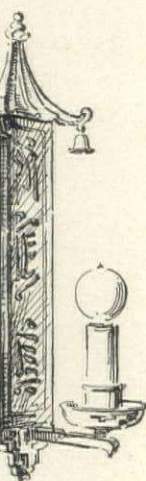


After the perennial seeds are scattered on the surface press them in with a board or brick

FIXTURES AS FURNISHINGS

Herein is explained the much neglected fixture, its place in the color scheme of a room and its position on the wall. For the shops where these fixtures may be purchased address HOUSE & GARDEN Shopping Service, 440 Fourth Avenue, New York City.

AGNES FOSTER



pagoda wall fixture designed to give intimate touch the Chinese room



for the bedroom comes a double fixture with etched mirror back

the fixture off at the ceiling, cap or plaster the hole, and use side lights. Where the or apartment is still under construction, arrangements for outlets can be made through the architect or electrician. If the work is not done, there are general rules to remember. The general height of the outlet is 6' above the floor, a variance of 1' down to accommodate the stature of the family is permissible and desirable. If the arms are inverted or turned down the outlet hole should be somewhat higher than 6'. The height of the ceiling is also to be considered. With a 9' ceiling the outlet should be no more than 5½'

French to its tiniest flowers, but suitable for the English room as well



THE modern apartment has many things to its credit: every conceivable convenience for modern living. And the old restored farmhouse has its distinctive charm. But in both there is usually lacking—unless one is fortunate—adequate, convenient and good looking lighting fixtures. The same is true of many of our best "brown fronts" where one can find such horrors as a green beetle-backed hanging chandelier over the dining table. In each of these cases the rooms may be suitably furnished, but the fixtures will be an eyesore that completely destroys unity and dispels charm. These conditions exist because householders do not look on fixtures as part of the furnishings. If the fixtures are bad, call in the junk man and have them removed. You will then have a clean slate to work on.

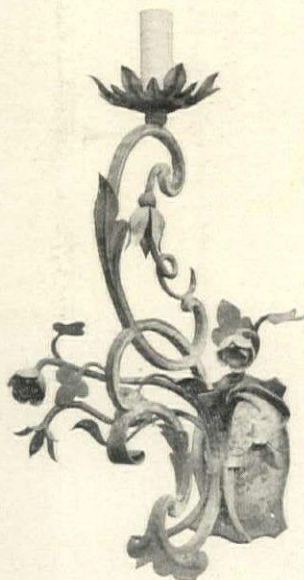
POSSIBLE SUBSTITUTES

Having disposed of your monstrosities, you face the problems of what to substitute. The really best procedure is

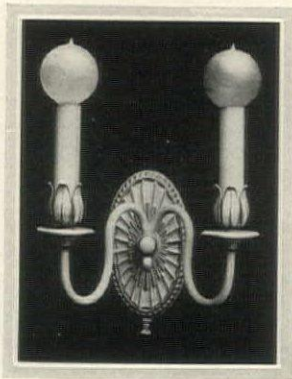
from the floor or even less to fit the furniture.

A better effect is had by using a double light fixture than a single; the latter being apt to look spotty when lit. Besides, it is better to have the arms spreading enough to allow several inches between the sockets. If the sockets are 8" apart, they permit the use of a shade or globe; otherwise an over-all shield would have to be used. With two bulbs thus shaded, the light is softer and less concentrated.

For a room 18' square, four double brackets will give sufficient light. All need not be used save on "grand" occasions. Used in a dining-room in conjunction with four table candles or candles on the serving table, and the lighting effect is at once sufficient and charming. In the living-room reading lamps are required in addition to side fixtures. Base outlets can be put in and the wires run under the rugs. Do not be persuaded into using the regular side fixtures with the wires coming out of them for the table lights. They disfigure the wall and are unpleasantly conspicuous. Any mechanic can run a wire along a door or window trim and paint it to match the woodwork. But the base outlet plan is better. Have a general idea where you want your lights to be and arrange the outlets accordingly. If your table stands on a rug, a hole can be made and buttonholed and the wire slipped through. There are no wires, then, to trip over or be untidy. The job assumes a look of permanency, which all homemakers desire.



Modern wrought iron fixtures are reminiscent of old Italian work and are justly becoming popular



An Adam fixture, delicate in design, is charming and suitable for the bedroom

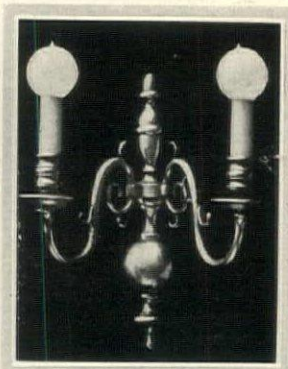


Buddha broods over the Chinese room from his fixture throne of bronze

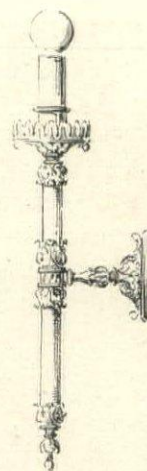
In any formal room the revived crystal fixtures can be used



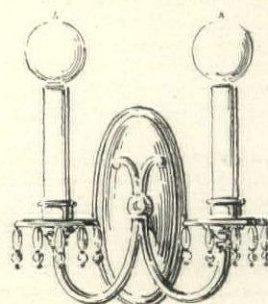
A simple, inexpensive fixture that can be painted to suit color of room



In a Colonial room this design is always suitable because of its lines



Made of wrought iron, this torch will find a place in the entrance hall of oak or stone



The pendants of this fixture are blown glass crystals. Use with mulberry shades

Crystal fixtures have come back. They find their place in any formal room where each crystal plays with the light, enlivening and enriching a delicate wall surface. Another attractive fixture is so arranged that the light is reflected in a gracefully shaped mirror with a tiny garland etched in the glass. Such a fixture would look well in a bedroom with the frame painted and antiqued to match the hangings. This coloring of fixtures is a vital part of the decorative scheme.

Dainty and colorful, the basket and flower fixture finds a place in the boudoir



Furnishing Forethoughts

DO YOU need the advice of an authoritative expert?

Our editors' task is to observe, to discover, to compare, to price, to select—the things that go to complete a gracious and charming home.

The forthcoming issue is an example of what skill and experience can do to set before you the benefits of this trained taste and careful choosing.

September, the Autumn Furnishing Number, will give you intimate and valuable ideas for making your home distinctive and individual—a dwelling far above the commonplace. It comes at an opportune time—the season of preparedness for a cosy, livable autumn and winter home.

The Autumn Furnishing Guide

You will find it a complete catalog. Nothing is forgotten. It shows well-chosen examples of how your home may be made charming, practical and pleasing. In fact, each article and picture is selected as if especially for you—with a view to beautifying your home and securing more comfort. You need this September number. Moreover this issue is an excellent example of the kind of a magazine you may expect each month. A small investment of \$3 for a yearly subscription (twelve exceptional numbers) may save you \$300, or even \$3,000 or more.

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OUR readers are urged to study and use this index as a buying guide. You will find each advertiser offers a product of quality, dependability and value—that you want, at all times, will receive prompt and courteous attention. If there are any other subjects in which you are interested and you do not find them listed below—do not hesitate to ask us. Whatever information you may desire about the home, whether it concerns your plans of building, decorating the interior, or the making of a garden—in fact—all indoors and out—we will gladly supply.

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ADVICE ON AUTUMN FURNISHINGS

September House & Garden is a guide to the annual autumn furnishing and refurnishing of the tasteful home. Next month you will be investing a great deal of time, thought, and money in putting your house to rights for the winter months. You cannot afford to be without the accurate judgment of trained experts on house problems.

House & Garden is a council of experts discussing all sorts of house and garden problems. We are making this September number solidly compact with household "do's" and "don'ts." These are just a few of the subjects treated—there are dozens more:

- Reclaiming the Old Apartment - *How skilful management, good taste, and \$800 transformed a nine-room ark into a thing of beauty.*
- Gardens Among Stones - - - - *How to bring a bit of the country home to your city residence by means of the rock garden.*
- The Rugs of the Heathen Chinees - *Chinese rugs are growing in popularity, and advice on how to tell the poor from the excellent is timely.*
- Preserving Your Periods - - - *Skilled advice on the selection and arrangement of furniture in harmony with its background and the architecture of your home.*
- To Blossom at Christmas - - - *A practical article on getting your house plants ready for winter and making certain of early blooming.*
- Hansel, Gretel & Co. - - - - *The amiable and unappreciated little dachshund as an indoor city pet.*

There will be ever so many photographs of good house arrangements, period styles in furniture, new wall papers, and good interiors. Fifty percent of the issue is devoted to practical autumn furnishing problems. Every regular department will concentrate on them. Don't risk disappointment with your furnishings this winter because you were uncertain what you wanted to do this fall. Twenty-five cents expended on House & Garden for September will bring you twenty-five hundred percent return in house contentment. There will be a big demand for this particular number. To make sure of it, reserve your copy at the newsstand, or enter your subscription now.

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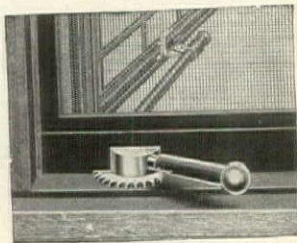
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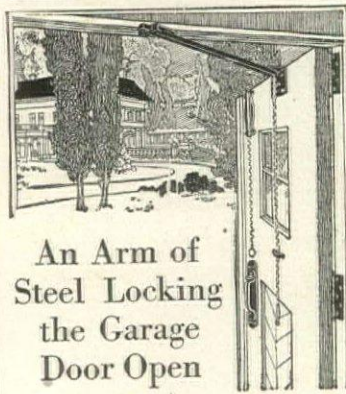


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The Garden of Sweet Perfumes

(Continued from page 31)

ers; the catchfly (*Silene noctiflora*), a tall, leafy plant with large white flowers; and four o'clocks—all these are easily raised from seed.

Sweet herbs as well as flowers must have a place, as they are wanted for sachets and pot-pourri. Southern-wood and borage are both aromatic. A lotion made by steeping sweet fern leaves in boiling water will relieve the burning irritation of ivy poison.

RAISING LAVENDER FROM SEED

Lavender is hardy when it is once firmly established, but it is not the easiest perennial to start in this country. At first I bought nursery stock, but out of two dozen plants which I got from four different sources in two years only one lived, and that was always a semi-invalid, so I resorted to the slower method.

In March a shallow box was filled with potting mould, thoroughly soaked with water, then covered with about $\frac{1}{4}$ " of soil, patted down firmly. The box was then covered with glass and placed in a west window. As soon as the seedlings appeared the glass was removed, but they were shaded from direct sun and slightly sprinkled every morning. When 2" high they were transplanted to a deeper box and set 2" apart. About two months later they were set in a partly shaded seed bed in the garden, and the last two leaves were nipped off each plant to ensure a bushy growth.

Cultivation was constant all summer until August, when they were again transplanted—this time to a bed which was to be their permanent home, a border partly shaded by shrubs. It happened to be a very dry summer, so they were sprinkled every evening. When cool weather set in, dead leaves were scattered between the plants, and the quantity increased as the weather became more severe. In the spring the mulch was removed and a little bone meal raked into the ground around the plants. The ground must be covered every winter, and it is well to have a dressing of well rotted cow manure dug into the bed in the early fall.

THYME AND ROSEMARY

There are two varieties of thyme: the broad leaf English for flavoring stews and soups, and the almond-scented for the flower garden. It is a pretty, variegated plant which remains green all through the year, and is used only for sachets and pot-pourri. Both varieties are perennials, but if sown early in the spring will mature the first season. The seed should be sown in rows 9" apart, on rich soil that has been worked into a fine, loose condition with a fine garden rake, and later smoothed off with the back of a spade or with a board. Then sprinkle thoroughly, using a fine rose on the watering can. Keep the can moving back and forth until the ground is thoroughly saturated to a depth of 1". Wait for an

hour, then scatter the seed thinly on the marked lines and cover about $\frac{1}{16}$ " with dry, fine soil. It is a good plan to fill the flour dredger with soil and shake it over the rows, for then you are sure of its being evenly distributed. After the seed is covered, put a board over the row and press gently to firm the seeds into the ground and aid germination.

Thyme, marjoram—in fact, all small seeds—do better if they are partly shaded. I make long, narrow frames of slats and cover them with unbleached muslin, then drive a few sticks into each side of the row and lay the frames over them. For safety against wind it is well to put a few nails through the frames into the sticks. About eleven o'clock in the morning it is advisable to sprinkle the muslin with water, as the evaporation will prevent the seedlings becoming too dry. If time will not permit making the frames, spread two or three thicknesses of paper over the rows, using stones to hold them in place, or mulch with lawn clippings. I like the former better, because they are easier to remove and are not so untidy as a grass mulch, which dries and blows about. When the seedlings are well established the mulch will have to be removed, but if the frames are used they can remain for another week.

Rosemary is another scented perennial, and the plants can be easily obtained from any nursery. If you want to raise from seed, proceed exactly as for thyme. After you have one well-grown plant it is better to propagate by cuttings than to raise from seed. Rosemary requires rich soil and a sunny position, and needs some light protection during the winter. The whole plant is aromatic, but the flowers are the strongest. The essential oil which is distilled from them is the principle ingredient of eau-de-cologne.

HOW TO USE THEM

A cupful each of lavender, thyme, rosemary and mint, steeped in two quarts of hot water for two hours, strained and added to a warm bath, banishes fatigue in a miraculous way. In cases of convalescence a cupful of the mixture in the sponge bath is both gratifying and refreshing to the invalid.

Ten pounds of lavender flowers and one pound each of musk, thyme, rosemary and mint leaves, all dried and mixed with one ounce of ground cloves, was grandmother's formula for the moth bags which preserved our furs and woollens just as effectively as camphor balls or tar mixtures do in these modern days.

To keep your garden blooming constantly, flowers must be gathered from day to day. They may be used to make pot-pourri, which will keep the house fragrant all winter. Make the concoction in a big stone jar which has a lid, and in the fall fill fancy jars from it.

Silhouettes Old and New

(Continued from page 21)

published in Hartford in 1846 and is as rare, perhaps, as Eduart's.

Among modern artists who have produced silhouette pictures one may mention Paul Knoewka (famous for his Shakespearean silhouettes), Arthur Rackham, Howard Pyle, F. Vallot, Valentini, Caran d'Ache, Phil May, Henri Riviere, Jules Diez and Maxwell Ayrton.

There are, to be sure, new silhouettes offered to collectors as old, but reliable antique dealers will not

stoop to such catering, and the collector who becomes interested in silhouettes will find the trouble of rummaging in the attic often repaid by the discovery of some old shadow picture, relegated thither when photography appeared, for a time, to displace the delightful old art that alone has preserved to the present generation the outline portraits of many of those who otherwise would have passed shadeless from this world into oblivion.

Silverton Cord Tires

The B. F. Goodrich Co.
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Potted Strawberry Plants

DREER'S Mid-Summer Catalogue

offers the best varieties and gives directions for planting in order to raise a full crop of Strawberry next year; also offers Celery and Cabbage Plants, Seasonable Vegetable, Flower and Farm Seeds for summer sowing, Potted Plants of Roses, Hardy Perennials and Shrubbery which may safely be set out during the summer; also a select list of seasonable Decorative Plants.

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Something New!

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PERCHES

on which they can stand with shallow water on one side, deep water opposite.

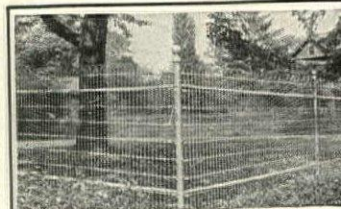
The center piece serves as food tray, or, when connected with running water as water-spreader making a

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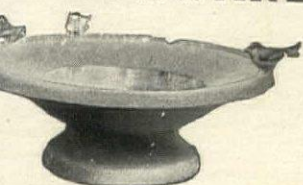
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The Ideal Greenhouse for the Ideal Garden Setting

Perhaps this title is a bit idealized itself—but let us explain what we have in mind, and see if after all we are not fully warranted in the statement.

To spend freely both thought and money on your garden, in making it quite the choicest, quite the most charmingly interesting of gardens, and then associate with it, a greenhouse not keyed up to it, is to say the least regrettable.

Consistency, you must admit, "is a jewel."

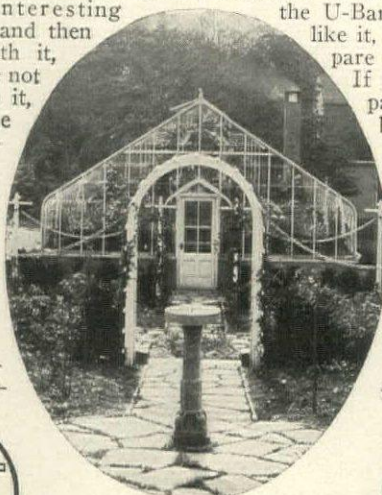
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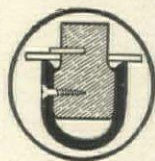
It is not a boastful statement to claim that no other greenhouse can equal the U-Bar; because no other greenhouse construction is constructed like the U-Bar. If none are like it, you can't compare it with others.

If you can't compare it—then it becomes a house unique unto itself.

If it's this top-notch in greenhouse-dom you want—then you want the U-Bar. Send for catalog. Or send for us. Or both.



There is no insistent dominating note in this delightful garden of Miss E. Jenkins, at Baltimore, Md. What charm has such harmony.



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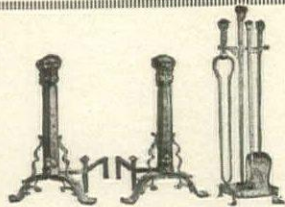
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Largest Makers of Sanitary Pottery in U. S. A.



Sewage Disposal for the Country Home

(Continued from page 36)

What you need in this case are two dry wells about 3' in diameter and 5' deep, built of the local stone and laid without mortar. There should be no bottom, and the top can be roofed with logs covered by 1' of sod or earth. Locate these dry wells 20' apart, the second a little down hill from the first, and connect them by a blind drain 2' below the surface of the ground. Both wells should be at least 100' from the camp, the nearest one connecting to your plumbing fixtures by a tight, carefully laid sewer line. This system, although not nearly as efficient as a well designed septic tank and disposal field, will give excellent service for a number of years, with an occasional cleaning of the well through which the sewage first passes. When eventually the surrounding soil is entirely clogged and no longer able to absorb the effluent, the old wells should be filled in with earth and two new ones constructed. These tanks, with the sewer and drain, should cost about \$140.

THE CASE OF THE SEASHORE COTTAGE

The last case to consider is a cottage by the seashore. You, the owner, do not want a leaching cesspool, owing to the proximity of your neighbors' houses and the danger to nearby wells. You have not land enough, however, to accommodate a regular tile disposal field. Besides that, your household averages only four or five persons. Consequently, the expense seems unreasonable. And you are perfectly right. If you have a heavy clay soil to contend with, a complete system might be the only sanitary alternative, but with the sandy gravel soil of the seashore there is a very efficient combination much less expensive to construct.

First comes the tank built of con-

crete and located underground 50' or more from the house. It should be 7' deep and about 6' long and 5' square. The manhole cover should be absolutely tight and the concrete walls of a rich mixture to insure the tanks being waterproof. As in the case of the larger septic tanks, both inlet and outlet pipes must be fitted with tees to avoid disturbing the surface of the sewage.

From the tank toward the downhill side dig a trench 2' deep and 2' wide for a distance of 45'. If the property line interferes, the trench need not be straight, as long as it has a slight, even grade away from the tank. In the trench upon a gravel bed 9" deep lay 40' of 4" land tile connecting into the tank with 5' of sewer pipe. The land tile must be laid with open joints as described above, and the trench filled with gravel and sand. This tank, with the connecting sewer and drain, should not cost, under average conditions, more than \$190.

Although easy to construct and practical, even upon small pieces of property where the soil is porous, this arrangement combines the two essential factors of a disposal system. That is, the warm and dark tank provides an ideal place for the action of the anaerobic bacteria, which are active agents in the decomposition of the organic matter in the sewage, and the tile drain which distributes the effluent near the surface of the ground makes possible the absorption and oxidation of the more liquid substances by the vegetation and action of the anaerobic bacteria. In this way Nature's scavengers are turned to use, and the dangerous organic compounds, broken up into their constituent parts, largely cease to be a menace to human health, a vital necessity in any home.

Considering the Lilies

(Continued from page 19)

Note that it is early spraying, however, as well as constant, that should be the practice; and the spraying of plants that are so healthy that it "seems foolish to do it." When they are in less perfect condition than this at the time of applying the spray, the mischief is already done beyond repair.

SOME OTHER GOOD KINDS

One of the most picturesque of all the lilies that we can have in the garden came out of China not so very many years ago, and is named for its discoverer, Dr. Henry. And though *Lilium Henryi* is still expensive enough to seem an extravagance, because there are not as many bulbs for sale as the market demands, it is so hardy and easily grown, and it multiplies so rapidly, that it is not really such. Of amazing strength and vigor, it grows as high as one's head, and a single bulb not infrequently bears fifteen to twenty flowers. In color it is a deep yellow, a little different from most yellows. That is, it is the warm and yet soft shade of an apricot, and it has brownish spots inside, similar to the deep crimson spots of the *speciosum* strain. If you cannot buy more than one bulb of this, get that one bulb, by all means. In three or four years you will have enough offsets to re-plant and make a splendid clump.

The Siberian coral lily is a low growing and beautiful scarlet that everyone can grow, and that propagates very easily, too. Either from its seeds or its bulb scales it may be multiplied, so there is no reason for

not having a colony of it. It is called *Lilium tenuifolium*.

The old Nankeen lily—the one suspected of being a hybrid—is *L. tateum*, and nothing is more fragrant and creamy and stately than this lovely species. It and the two above are Turk's caps. *L. Japonicum* is a pink outside and white within that should not be omitted. It is the trumpet form, of course.

I am almost tempted to omit the "gold banded lily of Japan"—the splendid *Lilium auratum*—not because it is difficult to grow, but because it is not permanent and needs constant renewing. Of course, there is no question about its being one of the most gorgeous things in all the floral kingdom, with its great white, gold banded flowers, studded within with purple spots. These flowers are normally as much as 6" to 8" across, and sometimes they measure quite 1'; a cluster of them towering above one's head is truly a regal sight. The season of its bloom is long, too, provided there are several of the bulbs planted, for in a group some will come into flower at one time and some at another.

The tiger lily we must not by any means leave out, although it is rather coarse and stiff and common. So is blue sky common, for that matter; that is nothing against it. Do not get the ordinary *L. tigrinum*, however, but choose the better form, which is *L. tigrinum* var. *splendens*. This has larger clusters of orange colored blossoms, spotted with maroon, and is altogether a finer and better plant in every way.

A Bird Bath



on your lawn or among your flowers will attract the birds and add to the charm of your garden. The bath illustrated is a new design affording a broad, shallow bathing area which can be enjoyed by fledglings quite as much as by older birds since it is but 4 inches from the ground. Reproduced in frost proof, Pompeian Stone, diameter 26 1/2 inches. Price \$5.00 (F. O. B., N. Y.).

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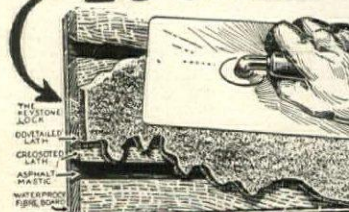
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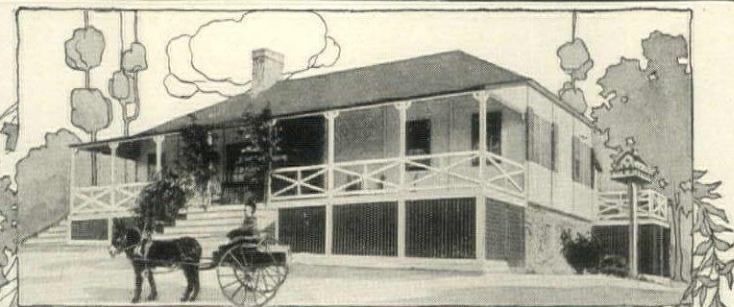
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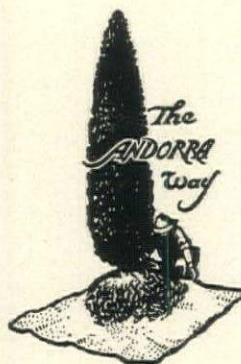


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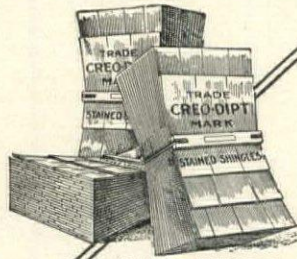


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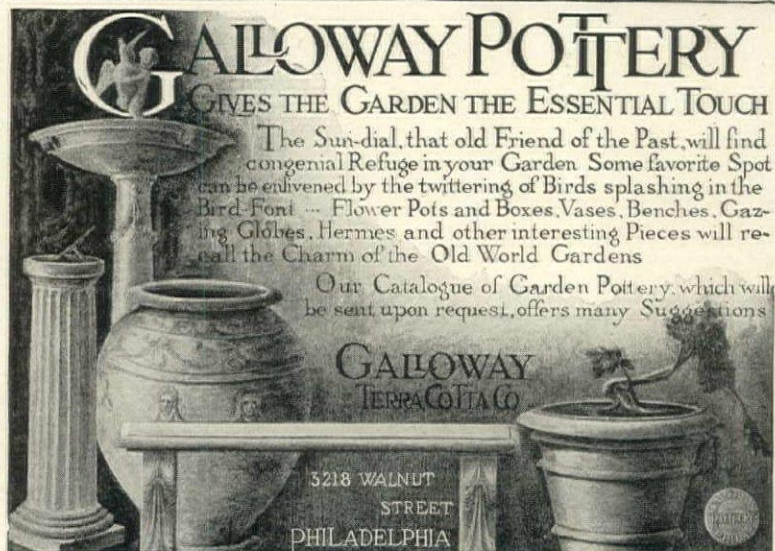
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Considering The Lilies

(Continued from page 52)

Lilies generally prefer a light, rich soil, but some will grow where these ideal conditions do not prevail. The best to choose for really heavy soil would be *tigrinum*, *splendens*, the native *Canadense*, or the also native *superbum*, called the American Turk's cap. This last is pronounced the very best tall red Turk's cap there is; it is one of the orange-reds. Be careful not to confuse it with the Japanese *L. speciosum*.

The other native is orange and red with dark spots, and there is a yellow form known as var. *flavum* or *luteum*. Any or all of these will succeed in fairly heavy soil, but for the rest of the family light and sandy earth is preferable. They will grow in most good garden soils, provided there is perfect drainage. This is absolutely essential.

Consider the character of a lily bulb for a moment, and you will see why. Composed of layer after layer of overlapping scales, is there anything less calculated to resist the ravages of moisture? Most complete drainage is easily seen to be almost their greatest necessity, and lack of it their greatest handicap. And as heavy soils do not dry out as quickly as sandy soils, nor drain as thoroughly after heavy rains, they naturally do not suit lilies. Some of the Japanese species, indeed, cannot endure a particle of moisture entering the bulb; and the Japanese gardeners have learned to plant these on their sides to ensure keeping their hearts perfectly free from it.

Extremely susceptible to heat, also, are lily bulbs, so they must not only go into well drained earth, but deep into it. If they can go where the sun will not strike during the heat of summer, so much the better. Thus it is that in the shrubbery border they do the best, usually, for here the earth above them is shaded and cool, though the stalks and leaves and flowers are not deprived of sun. This is what they like best: sun at their tops, but shadow at their feet.

All of the Japanese species send out roots above the bulb, along the stalk when this has grown. To give these proper protection and sufficient depth to ensure their not drying out, the bulbs must be set very much deeper than those of other species. Ten inches below the surface of the ground is not a bit too much, which means that a hole 1' deep should be dug for every bulb. Make its diameter $1\frac{1}{2}$ " or 2" more than the diameter of the bulb, and put 1" of clean sand in the bottom of it. Set the bulb on this, sift more sand around it to fill the space and cover it to a depth of 1". Then put in the earth.

This not only ensures perfect drainage, but also shields the bulb from direct contact with anything in-

jurious either above or at the side of it. Manure should never touch a lily bulb—nor any kind of bulb, for that matter—yet lilies need plenty of very rich feeding. When they are bedded in sand as described, their roots reach out and get nourishment through the leaching down of the moisture that has passed through the manured soil above them. Thus they are properly enriched, while in no danger of being injured.

Bulbs of the European and native species need not go more than 6" below the surface of the ground, for these do not produce the lateral roots along their stalks above the bulb. Otherwise it is well to plant them just the same, as far as sand and precautions against contact with manure are concerned, as the Japanese species.

All lilies should be mulched in the fall, after the top growth is dead, with strawy manure or autumn leaves. If you use the latter, let the lower layer of them remain each season. No fertilizer is more valuable than the leaf mold thus accumulated above the bulbs, to be carried down to their roots in the course of time, rich in plant food.

THE EASY-TO-GROW LILIES

- Yellow—
Lilium elegans, alutaceum—Japan.
" *concolor, parthenocion* — China.
" *testaceum* (Nankeen lily) — Probably Europe.
" *Canadense, flavum*—North America.
- Orange—
Lilium elegans, fulgens—Japan.
" *Henryi*—Japan.
- Orange-red—
Lilium elegans, fulgens—Japan.
" *tigrinum, splendens*—Japan and China.
- Scarlet—
Lilium elegans, atrosanguineum—Japan.
" *concolor*—China.
" *tenuifolia* (Siberian coral lily)—Siberia.
" *superbum* (American Turk's cap)—North America.
" *Chalcedonicum*—Greece.
- Yellow and red—
Lilium elegans, bicolor—Japan.
- Pink—
Lilium speciosum—Japan.
" *Japonicum*—Japan.
- Rose-red—
Lilium speciosum, rubrum—Japan.
- Burgundy-red—
Lilium Brownii—Japan.
- White—
Lilium longiflorum (Easter lily)—Japan, China, Formosa.
" *candidum* (Madonna lily) — Southern Europe.
" *auratum* (Gold banded)—Japan.

**Constructing The Private Garage**

(Continued from page 25)

When the turntable is omitted, a pit can be constructed in the floor to enable working beneath the car, but this is undesirable generally because it cuts into the floor and is dangerous when the car is not over it. Lots of built-in shelves, cupboards, drawers, etc., lighten the work and give good storage space. They add little to the cost compared with their value.

Drainage is highly important, for

here again the highly inflammable nature of gasoline and oil comes in. In the absence of a turntable the floor should slope at least $1\frac{1}{2}$ " in the size previously mentioned, toward the center from all sides. In the outlet should be a safety trap to prevent the gasoline getting into the sewer. With the many forms of turntable, the center of the table acts as the drain hole.

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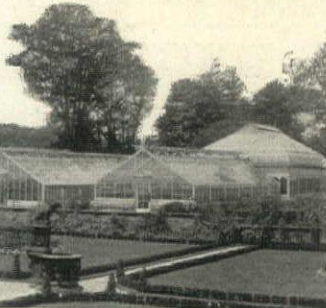
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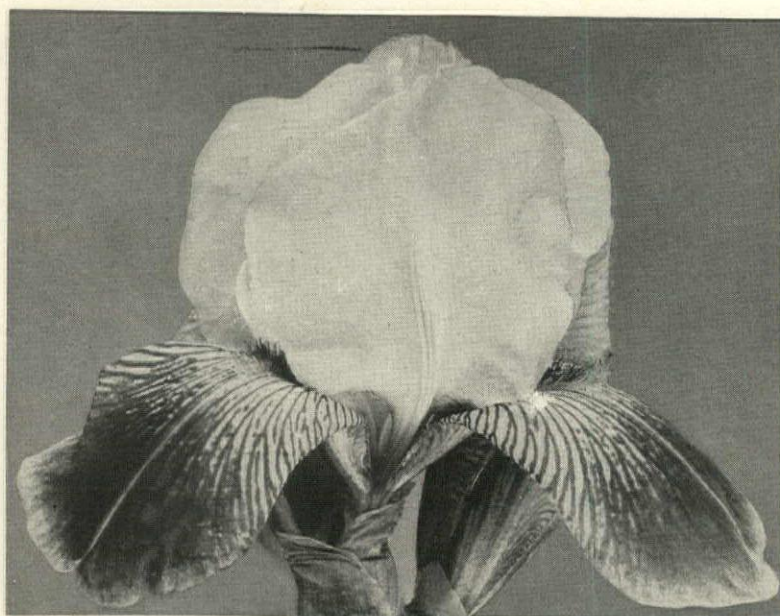
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Gard. Chron., April 29, 1916.

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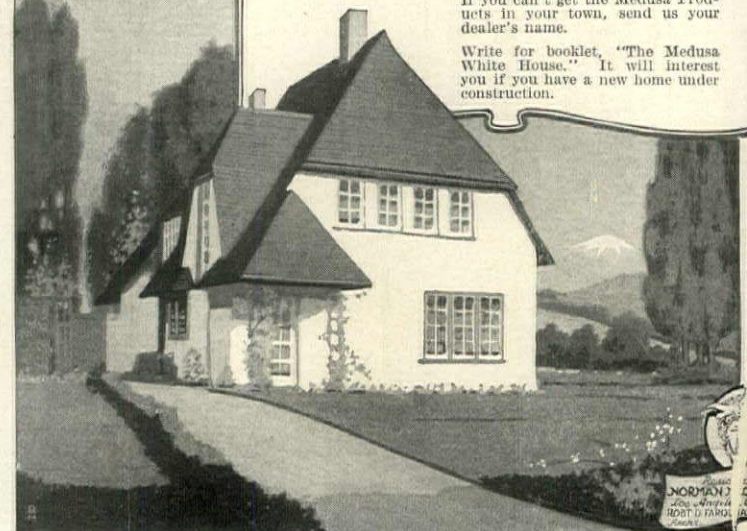
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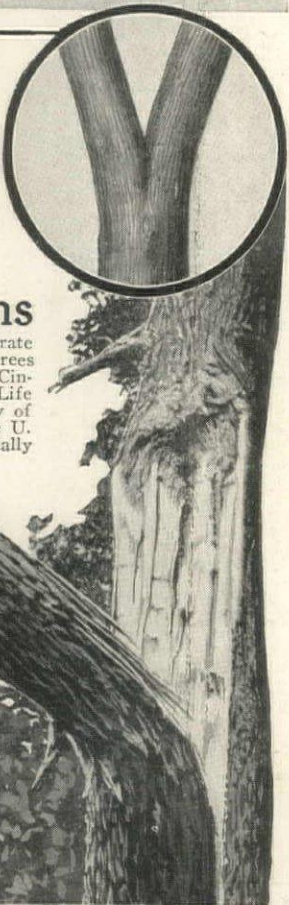
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Internal Revenue Department
to be a pure malt product—
not an alcoholic beverage.
Contains 14.50 per cent malt
solids—1.9 per cent alcohol.

Interesting Booklet on Request

Anheuser-Busch
St. Louis, U. S. A.

